

INTRODUCTION

Project Overview

The Imperial Irrigation District (IID) and the U.S. Department of the Interior, Bureau of Land Management (BLM) have prepared a Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) to assess the environmental effects of constructing, operating, and maintaining a transmission line from the area near Blythe, California, to the Southern California Edison Company's (SCE's) Devers Substation, approximately 10 miles north of Palm Springs, California, a distance of approximately 118 miles. The Proposed Project will operate at 500-kV and will provide increased transmission line capabilities from the area near Blythe to the Devers Substation to meet existing and future transmission system requirements.

IID is the State of California Lead Agency for the preparation of this EIS/EIR in compliance with the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et. seq.), CEQA implementing guidelines (California Code of Regulations [CCR] Title 14, Section 15000 et. seq.), and IID's Rules and Regulations to Implement CEQA.

BLM is the federal Lead Agency for the preparation of this EIS/EIR in compliance with the requirements of the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) regulation for implementing NEPA (40 Code of Federal Regulations [CFR] 1500 – 1508), and the BLM NEPA guidance handbook (H-1790-1).

The purpose of this document is to inform agency decision-makers and the general public about the potential adverse and beneficial environmental impacts of the Proposed Project and alternatives, and recommend mitigation measures that would reduce the significant adverse impacts to the maximum extent possible, and, where feasible, to a less than significant level. The information in an EIS or EIR does not dictate an agency's final determination on a project. However, under CEQA (Public Resources Code Section 21002.1), the state or local agency must adopt feasible mitigation measures or alternatives within its jurisdiction if they would avoid significant environmental effects identified for the Proposed Project.

The Proposed Project includes the construction and operation of new substation/switching stations and an approximately 118-mile 500-kV transmission line. The Project will initiate at a new substation/switching station (referred to as Keim) just south of the Blythe Energy Project where it will connect with one or more of a number of projects or parties. As shown on Figure ES-1, the alignment of the Proposed Project would follow a generally east/west alignment from this area to the Devers Substation. From the Keim substation/switching station to its intersection with the existing Devers – Palo Verde 1 (DPV1) line, the project would be constructed as a double circuit line or two parallel lines. At this intersection, another new substation/switching station (referred to as Midpoint) would be constructed to facilitate connection with DPV1, DPV2, Blythe Energy, and other regional entities. The proposed 500-kV transmission line would use steel lattice structures similar to the existing towers along its entire route. The Proposed Project transmission line would be located along existing transmission line rights-of-

way for nearly all of its alignment, and would utilize existing access roads, requiring a limited amount of new access road construction. Upgrades will be required at the Devers Substation on the west end of the project line.

In response to comments received on the Draft EIS/EIR, a minor variation to the Proposed Project has been developed (referred to as Variation PP1). This variation of the Proposed Project involves building the proposed project within the right-of-way for SCE's Palo Verde – Devers No. 2 (DPV2) transmission line instead of immediately adjacent to it as originally proposed. The DPV2 right-of-way is adjacent to the DPV1 right-of-way. Preferred Alternative PP1 would remain in the same general alignment as the Proposed Project but would be shifted only slightly (approximately 150 feet) into SCE's existing and approved DPV2 right-of-way. Implementation of this variation would result in one 500 kV line being built for both entities (Desert Southwest Transmission Line Project and SCE) within this right-of-way instead of two lines being built – one by each.

The original analysis in the Draft EIS/EIR included the area of the SCE right-of-way for DPV2. Therefore, no additional field reconnaissance is needed to address this minor variation/refinement to the Preferred Project. The “agency's preferred alternative” is the alternative which the BLM believes would fulfill its statutory mission and responsibilities, giving consideration to economic, environmental, technical and other factors. Based on the BLM's evaluation of Proposed Action and Alternatives, the BLM identified the Proposed Project as the “Agency Preferred Alternative.”

Four alternatives to the Proposed Project are being considered, and are analyzed in this EIS/EIR: 1) Alternative A (a second northern route alternative); 2) Alternative B (a southern route alternative that would include upgrading and use of certain existing transmission facilities); 3) Alternative C (a third northern route alternative with an alignment generally parallel to and north of the Alternative A alignment); and 4) the No Action Alternative. These alternatives, and their alignments, are shown on Figure ES-1.

Alternative A would be similar in design and structure to the Proposed Project. This alternative would also include the construction of an approximately 118-mile long transmission line from the new Keim substation/switching station to the Devers Substation. It would follow the same alignment as the Proposed Project except where the Alternative A route would follow Route Option A-2 for a segment west of Desert Center. In this area, Option A-2 follows the I-10 corridor where the Proposed Project parallels the north side of the existing DPV1 Transmission Line and DPV2 right-of-way.

Like the Proposed Project, in response to comments received on the Draft EIS/EIR, a minor variation to Alternative A has been developed (referred to as Variation A1). This variation involves building the proposed project within the right-of-way for SCE's DPV2 transmission line instead of immediately adjacent to it as originally proposed. Alternative A1 would remain in the same general alignment as Alternative A, but would be shifted slightly (approximately 150 feet) into SCE's existing and approved DPV2 right-of-way.

Alternative B would connect the new Keim substation/switching station in the area near the Blythe Energy Project with the existing Midway Substation near Niland, California. This alternative would be built as a new double-circuit, 230-kV transmission line that would generally follow the alignment of State Route 78 (SR-78) south from the new substation/switching station to the southern portion of the Chocolate Mountains before turning generally north and continuing

to the Midway Substation. This transmission line would be approximately 79 miles long. In addition to these new facilities, Alternative B would require upgrading a total of approximately 35 miles of existing transmission lines south of the Devers Substation, and upgrading substation facilities at the Midway, Coachella, Mirage and Devers Substations.

Alternative C would connect the new Keim substation/switching station in the area around the Blythe Energy Project with the Devers Substation in a manner similar to that of the Proposed Project. Alternative C would include the construction of a new transmission line (single-circuit, 500-kV) that would be approximately 117 miles in length and would follow a similar alignment slightly to the north of the Proposed Project alignment for much of its route.

As required by both NEPA and CEQA, a no project alternative is also considered in the analysis in this document. Additional alternatives were also considered during the initial alternatives formulation and screening process. These alternatives, and the reasons for their elimination from further consideration, are discussed in Section 2.7.

The Proposed Project and alternatives would be located within the California Desert Conservation Area (CDCA), a planning area under jurisdiction of the BLM. The CDCA Plan and amendments provide planning guidelines and land use requirements on BLM land within the CDCA. The CDCA Plan identifies designated utility corridors in which more intensive development of linear utilities is generally considered consistent with the CDCA Plan. Figure ES-2 shows designated utility corridors within the CDCA.

Because the project would be located within areas under BLM jurisdiction, construction and operation of the project requires BLM to authorize a Right-of-Way Grant. The Proposed Project and Alternatives A and C would be located within CDCA Plan-designated utility corridors, and a Right-of-Way Grant for the construction and operation of the Proposed Project or Alternatives A and C would be consistent with the CDCA Plan. Alternative B, however, would require the construction of a transmission line within the CDCA, but in areas outside of designated utility corridors. As such, for the BLM to issue a Right-of-Way Grant for construction and operation of Alternative B, an amendment to the CDCA Plan would be required or an exemption to the CDCA Plan would need to be authorized by the BLM.

Project Purpose and Need

The *California Energy Outlook: Electricity and Natural Gas Trends Report* (CEC 2001) describes the energy supply and demand trends of the past decade to provide perspective on current events. This report provides an overview of expected developments in the near future and addresses the long-term demand outlooks through 2010. The energy trend considers both electricity and natural gas developments. The report also examines electricity demand, load management, and natural gas infrastructure developments. The report estimates that demand for electrical power in the IID service area will increase at a rate of 20 to 30 megawatts (MW) annually. The report also states that California's peak electricity demand will continue to grow at about two percent per year on average.

New generation facilities have been completed in the region to the north and east of IID's service area that may provide a portion of IID's current and future requirements. These include the Griffith Energy Project in Kingman, Arizona and the South Point Energy Project north of Parker, Arizona. The Blythe Energy Project, west of Blythe, California, began commercial operations in December 2003.

Transmission access is the main constraint to utilizing these new generation sources to meet the increased demand for electrical power in the area. IID's primary transmission system includes 92-kV, 161-kV, and 230-kV transmission lines with direct interconnections at Mirage, Imperial, Coachella Valley, Devers, and Blythe Substations. Presently, access to the Western Area Power Administration (Western) transmission grid to the northeast is an existing 161-kV transmission line from the existing Blythe Substation to Niland. This existing transmission line was operating at or near its maximum capacity by the end of 2003.

The DSWTP will increase California's transmission import capability by providing greater access to sources of low-cost energy currently operating in the Southwest. The Southwest region currently has over 6,000 MW of surplus generation, which may be imported into California. The Southwest Transmission Expansion Planning (STEP)¹ working group independently concluded a similar magnitude of generation is available for import into California. Increased access to energy in the Southwest is forecasted to lower total energy costs and substantially benefit California consumers.

In addition, on May 8, 2004, regulatory agencies in California adopted the *Energy Action Plan* for California. The *Energy Action Plan* concluded that adequate, reliable, and reasonably priced energy supplies can be achieved, in part, by upgrading and expanding the electricity transmission and distribution infrastructure and reducing the time needed before facilities are brought on line.² In particular, "Action IV" of the *Energy Action Plan* states that ([t]he State will reinvigorate its planning, permitting, and funding processes to assure that necessary improvements and expansions to the bulk electricity grid are made on a timely basis."

Transmission infrastructure is necessary for a competitive market, and is vital to integrating new generation additions.³ The Federal Energy Regulatory Commission (FERC) recently stated that FERC's Goal 1 is to "Promote a Secure, High Quality Environmentally Responsible Infrastructure through Consistent Policies." Under this goal is objective 1.1:

- Expedite appropriate infrastructure development to ensure sufficient energy supplies; and
- Identify transmission and pipeline projects with high public interest benefits and facilitate their speedy completion, consistent with the Commission's (FERC) statutory mandates and due process.⁴

¹ STEP's Purpose and Scope states "Southwest Transmission Expansion Plan (STEP) is a sub-regional planning group that was formed to address transmission concerns in the Arizona, southern Nevada, southern California, and northern Mexico area. As a result of a large amount of new generation developed in this area, it was apparent to many that the transmission grid would be inadequate to efficiently deliver that power to the major load areas. The goal of STEP is "To provide a forum where all interested parties are encouraged to participate in the planning, coordination, and implementation of a robust transmission system between the Arizona, Nevada, Mexico, and southern California areas that is capable of supporting a competitive efficient and seamless westside wholesale electricity market while meeting established reliability standards." (See, Jan. 17th 2003 PDF file at: <http://www1.caiso.com/docs/2003/01/22/2003012211380012544.pdf> and the May 8th, 2003 document at <http://www1.caiso.com/docs/2003/05/13/2003051315061917183.pdf>).

² The California Energy Commission's Electricity and Natural Gas Infrastructure Assessment Report (December 2003) available at www.energy.ca.gov (<http://www.energy.ca.gov/reports/100-03-014F.PDF>). Similarly, the report highlights the need for additional transmission infrastructure investment, particularly to support generation infrastructure.

³ See, R.04-01-026, Order Instituting Rulemaking on policies and practices for the Commission's transmission assessment process (January 28, 2004) (Attachment B, Report of Current Planning Process for Investor-Owned Utilities).

⁴ See, Federal Energy Regulatory Commission Strategic Plan FY2004-FY2008, September 10, 2003, <http://ferc.gov/about/strat-docs/09-29-03-detail-strategic-plan.pdf>.

The California Legislature, likewise, has encouraged investment in transmission facilities to facilitate competition in the generation market. It has stated that reasonable expenditures to expand transmission facilities are in the public's interest, if made for the purpose of facilitating competition in electric generation markets.⁵

The DSWTP is expected to enhance competition amongst energy suppliers by increasing access to the California energy market, providing siting incentives for future energy suppliers, and providing additional import capability. Facilitating a competitive energy market in the Southwest may also create employment opportunities, which are beneficial to the economy and industries in Arizona and California.

The basic objectives of the Proposed Project are to:

Objective 1: Ensure access to competitive generation sources that will allow the minimization of market price spikes, which adversely affect the region's customers.

Objective 2: Provide improved transmission access to new generation sources (e.g., the Griffith Energy Project, the South Point Energy Project, and the Blythe Energy Projects) to meet the increased demands for electrical power in the area.

Objective 3: Enhance system reliability by providing additional transmission line capacity to the Coachella Valley load center and, thus, reduce loading on other transmission lines.

Objective 4: Improve operational flexibility during normal as well as contingency situations.

The Desert Southwest Project would satisfy these objectives by constructing and operating a new transmission line from the area around the Blythe Energy Project near Blythe, California, to the existing Devers Substation, near Palm Springs, California. The operating voltage will be 500-kV.

Consultation and Coordination

The scoping process for the Proposed Action was designed to solicit input from the public; from federal, state, and local agencies; and from other interested parties on the scope of issues that should be addressed in the Draft EIS/EIR. The scoping process is also intended to identify significant issues related to the Proposed Action.

NEPA Notification

Since the publication of the first Notice of Intent (NOI), the name of the proposal has been changed from the IID's 230-kV BN-BS Transmission Project to the Desert Southwest Transmission Project. Publication of the Draft and Final EIS will be under that name. In addition, the Proposed Project and alternatives has been revised to address comments and concerns raised during the scoping process. The scoping process for the Proposed Action is described below.

⁵ Cal. Pub. Util. Code § 454.1 (“(a) Reasonable expenditures by transmission owners that are electrical corporations to plan, design, and engineer reconfiguration, replacement, or expansion of transmission facilities are in the public interest and are deemed prudent if made for the purpose of facilitating competition in electric generation markets, ensuring open access and comparable service, or maintaining or enhancing reliability, whether or not these expenditures are for transmission facilities that become operational.”)

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Figure ES-1 Location of Proposed Project and Alternatives
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Figure ES-2 Existing BLM Designated Utility Corridors

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A Revised NOI describing the Proposed Action and IID's modified Proposed Project was published in the Federal Register on Tuesday, August 13, 2002 (Volume 67, Number 156, pages 52737-52738) announcing the preparation a joint EIS/EIR addressing a proposed 230kV or 500kV transmission line project and possible CDCA Plan Amendment. In accordance with NEPA, a 30-day comment period was provided for the NOI. Two public scoping meetings were held on the following dates: 1) August 14, from 7-9 p.m., at the Blythe City Council Multipurpose Room, Blythe, California; and 2) August 15, from 7-9 p.m., at the IID Board Room, La Quinta, California. A copy of the Revised NOI is provided in Appendix A. Comments received in response to the NOI are provided in Appendix B.

A NOI was published in the Federal Register on Monday, March 26, 2001, (Volume 66, Number 58, pages 16485-16486) announcing the preparation of a CDCA Plan Amendment and EIS for the IID's Proposed New 230-kV "BN-BS" Transmission Line Project. Two public scoping meetings were held on the following dates: 1) March 28, from 7-10 p.m., at the IID Board Room, La Quinta, CA, and 2) March 29, from 7-10 p.m., at the Blythe City Council Multipurpose Room, Blythe, CA. A copy of the NOI is provided in Appendix C. Comments received in response to the NOI are provided in Appendix D.

CEQA Notification

For the IID's Proposed 230-kV "BN-BS" Transmission Line Project a Notice of Preparation (NOP) was sent to the State Clearinghouse and noticed for public and agency review on Tuesday, April 24, 2001 (SCH #2001041105). Since the publication of the NOP, the name of the proposal has been changed to the Desert Southwest Transmission Project. Publication of the Draft and Final EIR was under that name. In addition, the Proposed Project was initially revised to address comments and concerns raised during the scoping process. A copy of the NOP is provided in Appendix C. Comments received in response to the NOP are provided in Appendix D.

As discussed above, IID subsequently modified its Proposed Project and issued a Revised NOP on July 31, 2002. In accordance with CEQA, a 30-day comment period on the Revised NOP was provided. A copy of the Revised NOP is provided in Appendix A. Comments received in response to the NOP are provided in Appendix B.

Review of Draft EIS / EIR

A Notice of Availability (NOA) for the Draft EIS/EIR was published in the Federal Register on December 19, 2003. This initiated a 90-day public comment period. Approximately 37 copies of the Draft EIS/EIR were distributed to interested parties and copies were also made available to anyone who requested them. Public meetings to solicit comments on the Draft EIS / EIR were held on November 18, 19, and 20 in Blythe, El Centro, and La Quinta respectively. A copy of the NOA and the notices advertising the public meetings on the Draft EIS / EIR are included in Appendix M. Copies of the comments received shown alongside how they were responded to in the Final EIS/EIR are included in Appendix L.

A Notice of Completion (NOC) for the Draft EIS / EIR was published on October 7, 2003. This initiated a 45-day public comment period. A copy of the NOC is included in Appendix M.

Review of Final EIS / EIR

This Final EIS/EIR has been distributed to a variety of federal, state, and local government agencies, elected officials, environmental organization, Native American Tribes, and other interested parties for review (see Section 5 for the Distribution List). The process for distributing the final document and for the Lead Agencies to take action on the Project, under both NEPA and CEQA, is described below.

NEPA Process

A Notice of Availability (NOA) for the Final EIS/EIR will be published in the Federal Register; this will start a 30-day public review period for this Final EIS/EIR. A copy of the NOA is included in Appendix M. Written comments on the Final EIS must be delivered or sent to the following address:

Field Manager
Bureau of Land Management
Palm Springs-South Coast Field Office
690 West Garnet Ave., P.O. Box 581260
North Palm Springs, California 92258-1260
(760) 251-4849

Following the public review period, the BLM will consider any comments received on the Final EIS/EIR and issue a Record of Decision (ROD) on the Proposed Project. The BLM will: 1) publish a Notice of Availability for the Record of Decision (ROD) in the Federal Register, 2) distribute a news release about the ROD in the local and regional media, 3) send the ROD to all those on the distribution list, and 4) make the ROD available to all that request a copy.

CEQA Process

Under CEQA agencies need not provide a separate review period for the Final EIS/EIR, the CEQA process is deliberately made shorter than federal process under NEPA. The final EIR can be submitted directly to the decision-making body of the lead agency and responsible agencies for consideration. The only requirement is that the lead agency must provide a copy of the Final EIS/EIR to each public agency that commented on the EIR. The proposed response must be provided to the pertinent public agency 10 days prior to the lead agency's certification of the final EIR.

Prior to approving a project the lead agency shall certify that:

1. The final EIR has been completed in compliance with CEQA;
2. The final EIR was presented to the decision-making body of the lead agency, and that the decision-making body reviewed and considered the information contained in the final EIR prior to approving the project; and
3. The final EIR reflects the lead agency's independent judgment and analysis.

Per CEQA Guidelines Section 15091, no public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The possible findings are:

1. Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the significant environmental effect as identified in the final EIR.
2. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
3. Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

After considering the final EIR and in conjunction with making findings under Section 15091 of the CEQA Guidelines, the Lead Agency may decide whether or how to approve or carry out the project.

California Desert Conservation Area Plan Amendment

In 1980 when the CDCA Plan was issued, utility corridors 2 to 5 miles wide were designated, mostly along existing pipelines and transmission lines (BLM 1980). Subsequently, several additional corridors were designated. The intent of these designations is to limit future disturbance and land use designation for utilities to previously disturbed areas in existing utility corridors. By the legislation enabling the CDCA Plan, a plan amendment is required to allow an exception to the plan's designated utility corridors.

An amendment to the CDCA Plan would not be necessary for the Proposed Project or Alternatives A and C, because the transmission lines would be located within a designated utility corridor on BLM land. However, an amendment to the CDCA Plan would be necessary for Alternative B because the Alternative B transmission line would not be located entirely within a designated utility corridor.

If the CDCA Plan is not amended, the BLM may authorize installation of a transmission line, 161-kV or larger, within existing corridors only, or the BLM may deny the project if the existing corridor option does not prove feasible. An alternative that must be considered in this EIS/EIR is the use of existing BLM designated corridors as designated in the CDCA Plan (BLM 1980 as amended) for its entire route across public land in California. The Proposed Project and Alternatives A and C, described in Section 2, meet this requirement.

Permits, Approvals, and Regulatory Requirements

Numerous federal, state and local regulations and permit requirements would be applicable to construction and/or operation of the Proposed Project and alternatives. The Desert Southwest

Transmission Project or its contractors would be required to comply with all applicable requirements, as well as obtain and comply with terms contained within required permits.

ALTERNATIVES INCLUDING THE PROPOSED ACTION

The Proposed Action consists of the issuance of several federal authorizations, including a Right-of-Way Grant that would allow the development of the Proposed Project, a new transmission line and associated switching stations and substations. The Project will initiate at a new substation/switching station near the Blythe Energy Project (referred to as Keim) to the existing Devers Substation near Palm Springs, California. The Proposed Project would operate at 500-kV and would provide increased transmission line capabilities from the area near Blythe to the Devers Substation to meet existing and future transmission system requirements.

Proposed Project

The Desert Southwest Transmission Project proposes to construct, operate, and maintain a new, approximately 118-mile transmission line from a new substation/switching station near the Blythe Energy Project (referred to as Keim) to the existing Devers Substation located approximately 10 miles north of Palm Springs, California. The Proposed Project would operate at 500-kV and would provide increased transmission line capabilities from the Keim substation/switching station near the Blythe Energy Project to the Devers Substation to meet transmission requirements. For the majority of the alignment, the transmission line would be located adjacent to SCE's existing 500-kV DPV1 transmission line and DPV2 right-of-way. In addition, the Proposed Project would include a new substation/switching (referred to as Midpoint) located at the intersection of the proposed line with the existing DPV1 line. From the area near the Blythe Energy Project to Midpoint, the new line would be constructed as a double circuit line or two parallel lines. In the future, a new substation could be built on Dillon Road adjacent to the existing transmission line facilities near Indio, California to connect the proposed transmission line to IID's existing Coachella Substation. The proposed location of the new substations/switching stations, connection facilities, and Proposed Project transmission line route are shown on Figure ES-1. As discussed in Section 1, the Proposed Project transmission line would be located entirely within a BLM-designated utility corridor; therefore, an amendment to the CDCA Plan would not be required. However, a Right-of-Way Grant from the BLM for construction and operation activities associated with the Proposed Project transmission line would be necessary for areas within the CDCA.

Table ES-1 summarizes the various components of the Proposed Project.

Table ES-1
Summary of Proposed Project Components

Proposed Project and Right-of-Way
<ul style="list-style-type: none">• Transmission Line Length: approximately 118 miles.• Initiation Point: New Keim Substation / Switching Station 4.5 miles west of Blythe, California.• Connection Point: New Midpoint Substation / Switching Station at intersection of new line(s) with DPV1 and DPV2.• Possible future connection with IID's system at Dillon Road near Coachella, CA.• Termination Point: SCE's Devers Substation near Palm Springs, CA.• Right-of-Way Width: 300 feet (280 feet on BLM lands). The right-of-way width would be reduced consistent with prudent utility practices, in specific locations to mitigate potential impacts to resources (e.g., historic trails, adjacent land

Table ES-1
Summary of Proposed Project Components

<p>restrictions, existing roads and highways, and biological and cultural resources).</p> <ul style="list-style-type: none"> • Total Right-of-Way Acreage: approximately 4,290 acres.
<p>Transmission Line Facilities (single-circuit, 500-kV)</p> <ul style="list-style-type: none"> • Conductors: One 3-phase AC circuit consisting of two 1.5 to 2-inch ACSR conductors per phase. • Minimum Conductor Distance from Ground: 30 feet at 60 °F and 27 feet at the maximum operating temperature. • Shield Wires: Two 1/2 to 3/4-inch diameter wire(s) for steel lattice. • Transmission Line Tower Types: <ul style="list-style-type: none"> - Steel Lattice Towers along entire route. - Structure Heights (approximate): Steel Lattice – Up to 180 feet. • Average Distance between Towers: Steel Lattice – 1,400 feet*. • Total Number of Towers (approximate): 430 – 480*.
<p>Substation Facilities</p> <ul style="list-style-type: none"> • A new substation/switching station (referred to as Keim) near the Blythe, CA. This will require an area of approximately 25 acres. • A new substation/switching station (referred to as Midpoint) at the intersection of the existing DPV1 line and the proposed line, requiring an area of approximately 25 to 50 acres. • In the future, a new substation/switching station on Dillon Road, requiring an area of approximately 25 acres. • Devers Substation: Facilities would be expanded at SCE's existing Devers Substation, north of Palm Springs, California, to accommodate interconnection of the Proposed Project transmission line and to reconfigure existing transmission line approaches to the substation to provide the necessary clearances between adjacent transmission lines and other facilities.
<p>Communications Facilities</p> <ul style="list-style-type: none"> • Systems: Digital Radio System, microwave, VHF/UHF radio, and Fiber Optic Ground Wire (OPGW). • Functions: Communications for fault detection, line protection, SCADA, and two-way voice communication.
<p>* The exact quantity and placement of the structures depends on the final detailed design of the transmission line which is influenced by the terrain, land use, and economics.</p>

Proposed Project Transmission Line Alignment

The Proposed Project transmission line alignment is shown in Figure ES-1. The Proposed Project transmission line would be approximately 118-miles in length, and would originate at the new Keim Substation / Switching Station located just east of Blythe, California. The transmission line would traverse southwest along existing transmission line rights-of-way approximately 1.8 miles. At this point it would turn west and proceed approximately 7 miles to the point where it would meet the corridor of SCE's existing 500-kV DPV1 Transmission Line and DPV2 right-of-way. A proposed new 25 to 50-acre substation / switching station (Midpoint) would be developed at this location. The proposed line would be built as a double-circuit or two parallel 500-kV lines between Keim and Midpoint. From Midpoint, the line would parallel the DPV1 Transmission Line until approximately 3 miles southeast of Desert Center. At this point, the line would shift to the north to go around the Alligator Rock area. After passing the north end of Alligator Rock, the line would again shift back to the south to return to its parallel alignment adjacent to the existing DPV1 transmission line and DPV2 right of way. The proposed transmission line would cross to the north side of Interstate 10 (I-10), approximately 2.5 miles east of the Cactus City rest area, and continue west adjacent to the existing DPV1 transmission line and DPV2 right-of-way to the termination point at Devers Substation.

In response to comments on the Draft EIS/EIR, a minor variation of the Proposed Project, referred to as PP1, has been developed. It is the same as the Proposed Project in all respects except that west of the new Midpoint substation / switching station, where the Proposed Project parallels the DPV1/DPV2 rights-of-way, the new line would be built within SCE's DPV2 right-of-way instead of immediately adjacent to it as originally proposed. Variation PP1 would remain in the same general alignment as the Proposed Project but would be shifted only slightly (about 150 feet) to occupy the DPV2 right-of-way. In addition, Variation PP1 would pass through the Alligator Rock Area of Critical Environmental Concern (ACEC), just south of Desert Center. Figure 2-1 shows the spatial relationships among the existing DPV1, DPV2, and Preferred Alternative rights-of-ways. Under this variation of the Preferred Alternative, one 500 kV line would be built by both entities (Desert Southwest and SCE) within the DPV2 right-of-way instead of two parallel lines being built - one by each.

Project Construction

Constructing a transmission line includes identifying and constructing access roads, staging areas, rights-of-way and structure sites clearing (including construction yards), installing foundations, assembling and erecting the structures, clearing, pulling (i.e., stringing transmission line conductors through the structures), tensioning and splicing sites, installing ground wires and conductors, installing counterpoise/ground rods, and cleanup and site reclamation. Various phases of construction may be supported by the use of helicopters to minimize--and eliminate in some cases--the need to travel along the right-of-way. The use of helicopters is especially beneficial for conductor installation activities.

The phases of construction would occur at different locations throughout the construction process. This would require several construction crews operating simultaneously in different locations. Table ES-2 lists temporary and permanent disturbance for the Proposed Project.

Table ES-2
Proposed Project Land Disturbance by Project Feature

Project Feature	Acres Disturbed During Construction	Temporary Disturbance/Acres to be Restored	Acres Permanently Disturbed
Structure Sites	914 – 1,020	866 - 966	48 – 54 ^a
Access Roads	26 ^b	6	20
Staging Areas	28	28	0
Pull Sites ^c	63	63	0
New Substation/Switching Stations (3) ^d	75-100		75-100
Devers Substation (expansion)	5		5
Total Estimated	1,111-1,242	963-1,063	148-179
^a Area at structure sites include short spur roads from the existing Devers-Palo Verde Transmission Line maintenance road. ^b New access roads would be required and some existing roads would require upgrades to allow passage of heavy equipment to set structures and deliver concrete. ^c Pull sites are areas at which equipment utilized for installation of transmission line wires would be temporarily located during construction. ^d The Keim Substation/Switching Station would require approximately 25 acres; the Midpoint Substation would require approximately 25 to 50 acres; and the Substation/Switching Station on Dillon Road would require approximately 25 acres.			

Alternative A – Second Northern Route Alternative

Alternative A would be similar in design and structure to the Proposed Project. This alternative would also include the construction of an approximately 118-mile long transmission line from the new Keim Substation/Switching Station to the Devers Substation. It would follow the same alignment as the Proposed Project except where the Alternative A route would follow Route Option A-2 for a segment west of Desert Center. In this area, Option A-2 follows the I-10 corridor where the Proposed Project parallels the north side of the existing DPV1 Transmission Line and DPV2 right-of-way.

Like the Proposed Project, in response to comments received on the Draft EIS/EIR, a minor variation to Alternative A has been developed (referred to as Variation A1). This variation involves building the proposed project within the right-of-way for SCE's DPV2 transmission line instead of immediately adjacent to it as originally proposed. Variation A1 would remain in the same general alignment as Alternative A, but would be shifted slightly (approximately 150 feet) into SCE's existing and approved DPV2 right-of-way.

As with the Proposed Project, the Alternative A transmission line would be located entirely within a BLM-designated utility corridor; therefore, a CDCA Plan amendment would not be required. The Alternative A transmission line alignment is shown on Figure ES-1. The BLM-designated utility corridors in the CDCA are shown on Figure ES-2.

Alternative B– Southern Route Alternative

If Alternative B were selected, the new transmission line would have to be built at 230-kV. Alternative B would include the construction of a new approximately 79-mile, 230-kV double-circuit transmission line between the new Keim Substation / Switching Station and the existing Midway Substation near Niland. In addition to the new transmission line, and the equipment upgrades at the Midway Substation, Alternative B would require upgrading segments of IID's existing KN-KS transmission line and related facilities between the existing Coachella and Mirage Substations and between the Mirage and Devers Substations. This upgrade would enable the final interconnection between the new substation/switching station and the Devers Substation commensurate with the Proposed Project.

Approximately 40 miles of the new transmission line right-of-way would be located within a BLM-designated utility corridor. However, 38 miles of the right-of-way would not be located within a BLM-designated utility corridor; therefore, an amendment to the CDCA Plan would be required. Figure ES-1 shows the locations of the new substation/switching station on Hobsonway, the Alternative B transmission line alignment, and the section of IID's existing KN-KS transmission line that would be upgraded. The BLM-designated utility corridors in the CDCA are shown on Figure ES-2.

Table ES-3 summarizes the various components of Alternative B.

Table ES-3
Summary of Alternative B Components

Proposed Route and Right-of-Way

- Route Length: 79 miles (plus upgrades to an additional 35 miles of existing transmission lines).
- Initiation Point: New Keim Substation / Switching Station south of the Blythe Energy Project area.
- Termination Point: Midway Substation near Niland, CA. (Upgrades to segments of existing transmission lines between Coachella, Mirage, and Devers substations would achieve connection with Devers Substation.)
- Right-of-Way Width: 300 feet. The right-of-way width would be reduced in specific locations to mitigate potential impacts to resources (e.g., historic trails, existing roads and highways, and biological and cultural resources).
- Total Right-of-Way Acreage: 2,790 acres.

Transmission Line Facilities (double circuit, 230-kV)

- Conductors: Two, 3-phase AC circuits consisting of one or two 1-inch ACSR conductors per phase.
- Minimum Conductor Distance from Ground: 30 feet at 60 °F and 27 feet at the maximum operating temperature.
- Shield Wires: One for single pole designs and two for H-frame designs of 3/8 to 3/4-inch-diameter wire(s).
- Transmission Line Tower Types:
 - Single-pole steel structures entire route, with the exception of other transmission line crossings.
 - Structure Heights (approximate): Single Pole – 100 to 125 feet; H-frame – 45 to 65 feet.
- Distance between Towers (approximate): Single Pole – 800 to 1,200 feet.
- Total Number of Towers (approximate): 354 - 465 depending on final design.
- Total Number of Towers to be upgraded (approximate): 121
- Number of New “Inset” Towers in Upgrade Segments: 7

Substation Facilities

Expansion of existing facilities at substations would be necessary for Alternative B. The following modifications at existing substations, or at substations being completed as part of other projects, would be necessary:

- A new substation/switching station near the Blythe Energy Project (referred to as Keim). This will require a total area of approximately 25 acres.
- Midway Substation near Niland, CA: Existing facilities would be expanded at the existing Midway Substation to accommodate the new transmission line and to rearrange existing transmission line approaches to the substation to provide the necessary clearances between adjacent lines and other facilities. This will require a total area of approximately 2 acres.
- Coachella Substation: Existing facilities would be upgraded. All improvements would be within the existing footprint of the substation.
- Mirage Substation: Existing facilities would be expanded. All improvements would be within the existing footprint of the substation.
- Devers Substation: Facilities would be expanded at the existing Devers Substation, north of Palm Springs, California, to accommodate interconnection of the Proposed Project transmission line, reconfigure existing transmission line approaches to the substation, and provide the necessary clearances between adjacent transmission lines and other facilities. This will require a total area of approximately 5 acres.

Communications Facilities

- Systems: Digital Radio System, VHF/UHF radio.
- Functions: Communications for fault detection, line protection, SCADA, and two-way voice communication.

Project construction activities associated with Alternative B would be similar to those described for the Proposed Project. Construction methods associated with Upgrade Segments 1 and 2 under this alternative are described below. Table ES-4 lists estimated land disturbance for Alternative B.

Table ES-4
Alternative B Land Disturbance by Project Feature

Project Feature	Acres Disturbed During Construction	Temporary Disturbance/Acres to be Restored	Acres Permanently Disturbed
Structure Sites	494 - 657	469 – 624	25 – 33 ^a
Existing Access Roads	11 ^b	9	2
New Access Roads ^c	24	12	12
Staging Areas	30	30	0
Pull Sites	43	43	0
New Substation/Switching Station	25		25
Upgrade Segment 1	25	25	0
Upgrade Segment 2	10	8	2
Midway Substation	2		2
Devers Substation (expansion)	5		5
Total Estimated	667 – 830	596 - 751	71 – 79
^a Area at structure sites includes short access road from the existing maintenance roads.			
^b Existing roads would require upgrades to allow passage of heavy equipment to set structures and deliver concrete.			
^c Approximately 10 miles of new roads, 20 feet wide, would be required to access structure sites for construction. It is estimated that 50 percent of the roads would be restored.			

Alternative C – Third Northern Route Alternative

Alternative C would be similar in design and structure to the Proposed Project. This alternative would include the construction, operation, and maintenance of a new, approximately 117-mile-long, 500 kV transmission line from the new Keim Substation/Switching Station located south of the Blythe Energy Project Area, to SCE's Devers Substation, approximately 10 miles north of Palm Springs, California (also shown on Figure ES-1). However, Alternative C would generally parallel I-10 for much of its length (the Alternative C transmission line alignment is located at varying distances – approximately 1 to 4 miles – north of the Proposed Project transmission line alignment).

The Alternative C transmission line would be located entirely within a BLM-designated utility corridor in areas of the CDCA; therefore, a CDCA Plan amendment would not be required. The Alternative C transmission line alignment is shown on Figure ES-1. The BLM-designated utility corridors in the CDCA are shown on Figure ES-2.

Table ES-5 summarizes the various components of Alternative C. Many of the components would be similar to those described for the Proposed Project.

Table ES-5
Summary of Alternative C Components

<p>Proposed Route and Right-of-Way</p> <ul style="list-style-type: none"> • Transmission Line Length: approximately 117 miles. • Initiation Point: New Keim Substation / Switching Station south of the Blythe Energy Project area • Possible future connection with IID's system at Dillon Road near Coachella, CA • Termination Point: SCE's Devers Substation near Palm Springs, CA. • Right-of-Way Width: 300 feet. The right-of-way width would be reduced in specific locations to mitigate potential impacts to resources (e.g., historic trails, adjacent land restrictions, existing roads and highways, and biological and cultural resources). • Total Right-of-Way Acreage: approximately 4,250 acres.

Table ES-5
Summary of Alternative C Components

Transmission Line Facilities (single-circuit, 500-kV) <ul style="list-style-type: none"> Conductors: One 3-phase AC circuit consisting of two 1.5 to 2-inch ACSR conductors per phase. Minimum Conductor Distance from Ground: 30 feet at 60 °F and 27 feet at the maximum operating temperature. Shield Wires: Two 1/2 to 3/4-inch-diameter wire(s) for steel lattice. Transmission Line Tower Types: <ul style="list-style-type: none"> Steel Lattice Tower along entire route. Structure Heights (approximate): Steel Lattice – 100 to 180 feet. Average Distance between Towers: Steel Lattice – 1,400 feet*. Total Number of Towers (approximate): 405 – 440*.
Substation Facilities <ul style="list-style-type: none"> A new substation/switching station near the Blythe Energy Project (referred to as Keim). This will require a total area of approximately 25 acres. A new substation/switching station at the intersection of the existing DPV1 line and the proposed line (Midpoint). This will require a total area of approximately 25 to 50 acres. In the future, a new substation/switching station on Dillon Road, requiring a total area of approximately 25 acres. Devers Substation: Facilities would be expanded at the existing Devers Substation, north of Palm Springs, California, to accommodate interconnection of the Proposed Project transmission line and to reconfigure existing transmission line approaches to the substation to provide the necessary clearances between adjacent transmission lines and other facilities. This will require a total area of approximately 5 acres.
Communications Facilities <ul style="list-style-type: none"> Systems: Digital Radio System, microwave, VHF/UHF radio. Functions: Communications for fault detection, line protection, SCADA, two-way voice communication.
<p>*The exact quantity and placement of the structures depends on the final detailed design of the transmission line, which is influenced by the terrain, land use, and economics. Alignment options may also slightly increase or decrease the quantity of structures.</p>

Project construction activities associated with Alternative C would be similar to those described for the Proposed Project. Table ES-6 lists estimated land disturbance for Alternative C.

Table ES-6
Alternative C Land Disturbance by Project Feature

Project Feature	Acres Disturbed During Construction	Temporary Disturbance/Acres to be Restored	Acres Permanently Disturbed
Structure Sites	701 – 936	665 - 888	36 – 48 ^a
Access Roads	20 ^b	7	13
Staging Areas	28	28	0
Pull Sites	63	63	0
New substation/switching station ^c	75-100		75-100
Devers Substation (expansion)	5		5
Total Estimated	892 – 1,152	763 - 986	129 - 166
^a . Area at structure sites include short access road from the existing maintenance roads. ^b . Existing roads will require upgrades to allow passage of heavy equipment to set structures and deliver concrete. ^c . The Keim Substation/Switching Station would require approximately 25 acres; the Midpoint Substation/Switching Station would require approximately 25 to 50 acres; and the Substation/Switching Station on Dillon Road would require approximately 25 acres.			

No Action Alternative

Under the No Action Alternative, the BLM would not issue a Right-of-Way Grant for the construction of the Proposed Project.

Alternatives Screening

Since the Federal actions (see Table 1-1) associated with the development of the Proposed Project are limited primarily to the issuance of applicable permits necessary for the construction and operation of the Project, alternatives to these actions are similarly limited. However, a range of potential alternatives to the Proposed Project were considered and evaluated, as discussed below, to consider alternatives projects that may avoid or minimize potential adverse effects of the Proposed Project. Potential alternatives to the Proposed Project were identified on the basis of issues and concerns identified during the NEPA and CEQA scoping process.

The alternatives screening process consisted of three steps:

Step 1: - Identify the basic objectives of the Proposed Project.

Step 2: - Identify the primary environmental issues associated with the construction, operation, and maintenance of the Proposed Project.

Step 3: - Identify a reasonable range of potential alternatives and evaluate each alternative using the following criteria:

- Potential to provide a clear environmental advantage over the Proposed Project;
- Technical and regulatory feasibility; and
- Consistency with IID's objectives, the project's purpose and need, and public policy objectives.

Alternatives that met the screening criteria of Step 3 were carried forward for detailed analysis in the Draft EIS/EIR. Those alternatives that did not meet both criteria were not evaluated further. The particular reasons for removing them from consideration are provided in Table 2-12.

SUMMARY OF IMPACTS AND MITIGATION MEASURES

Section 3 of the EIS/EIR presents analyses of the potential impacts of the Proposed Project and alternatives. Table ES-7 provides a summary of these potential impacts and mitigation measures to reduce or eliminate such impacts.

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Section 3.1 - Biological Resources			
PROPOSED PROJECT (VARIATION PP1)			
<u>Vegetation Impact 1:</u> Construction and operation of the Proposed Project would result in the permanent loss of vegetation communities.	LS	<p><u>Vegetation Impact 1 Mitigation:</u> Adverse effects on vegetation disturbance during construction would be minimized as practicable. The following measures would be implemented to reduce construction disturbances and maximize recovery of the vegetation communities:</p> <ul style="list-style-type: none"> • During construction, travel would be restricted along the existing access roads and spur roads to the shortest feasible path to minimize impacts to vegetation communities. • Existing access roads would be used to the maximum extent allowable, and construction of new access and spur roads would be limited to the extent practicable. • Vegetation removal would be minimized wherever possible and would be restricted in sensitive resource areas (e.g., areas with erodible soils and designated areas of critical environmental concern). • To the extent possible, grading and scrubbing of vegetative cover shall be avoided on all spur roads and tower pad locations, and all vehicular traffic shall drive within field designated overland routes. 	LS
<u>Vegetation Impact 2:</u> Construction, operation, and maintenance activities could result in the introduction and dispersal of noxious weeds.	S	<p><u>Vegetation Impact 2 Mitigation:</u> The following prescriptions would prevent the spread of invasive weeds into previously uninfested areas in the designated construction right-of-way.</p> <ul style="list-style-type: none"> • Prior to initiating construction activities, all clearing and grading equipment would have the tires, axels, frame, running boards, under carriages, and soil holding areas washed and cleaned at a designated station to prevent noxious weed species transport to unaffected areas. • A qualified weed specialist, range ecologist, or arid botanist would survey the tower pad locations, stringing and tensioning sites, new spur road sites, existing access roads that require improvements, and construction material staging areas prior to construction to identify any listed noxious species infestations. If an infestation is identified, the infestation area would be clearly delineated and staked prior to project construction and an appropriate buffer would be maintained. The lead environmental compliance monitor would ensure that construction-related activities would be prohibited within these designated exclusion zone(s). Where avoidance is infeasible, please refer to measures listed below. • Before beginning construction activities in unavoidable infestation exclusion zones, these infestations would be controlled through acceptable mechanical (e.g., topsoil excavation and removal), cultural, or herbicide applications. • If direct control methods or removal of noxious weed infestations in construction disturbance areas is not feasible, the noxious plants may be cut and disposed of (e.g., burned at an acceptable and permitted location) or destroyed in a manner that is acceptable to the BLM. • The lead environmental construction monitor would educate construction personnel on noxious weed identification and the legal requirement of controlling and preventing the spread of noxious weed infestations. 	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Vegetation Impact 3: Construction of the Proposed Project transmission line could remove or disturb riparian communities.	S	<p>Vegetation Impact 3 Mitigation: Incorporate riparian area avoidance and permit measures. The following actions and all permit conditions detailed within the COE Nationwide 12 permit and RWQCB 401 water quality certification (subject to separate approval) would be implemented by the construction manager and environmental compliance monitor(s).</p> <ul style="list-style-type: none"> Before construction, qualified resource specialists would stake and flag or fence exclusion zones around all identified riparian woodlands. Such exclusion zones would include a 10-foot buffer to preclude sediment intrusion into the riparian areas. Earth-moving activities would be restricted from these zones, although essential vehicle operation and foot travel would be permitted on existing roads, bridges, and crossings. All other construction activities, vehicle operation, material and equipment storage, and other surface-disturbing activities would be prohibited within the exclusion zone. In areas where riparian habitats are unavoidable, the construction manager in consultation with the lead environmental compliance inspector would narrow the width of the centerline to the maximum extent allowable. New spur roads and existing access roads improvements would be constructed and implemented using methodology that preserve existing hydrology. Tower pad clearance would be minimized to the maximum extent allowable. All temporarily disturbed riparian areas that would not be utilized for future routine operation and maintenance activities would be restored to ensure no net loss of habitat functions and values. Following construction activities, the areas would be restored as soon as practicable and the activities described in the Reclamation Plan would be implemented (Appendix F). Permanent, unavoidable losses of riparian areas would be mitigated by restoration and/or preservation on off-site habitats. The final mitigation acreage ratios and off-site restoration sites would be determined by the responsible agency(s) and would be conditioned through final permitting activities. 	LS
Wildlife Impact 1: Construction of the Proposed Project would result in both temporary and permanent loss of wildlife habitat and habitat fragmentation.	LS	<p>Wildlife Impact 1 Mitigation: Compensate for habitat modifications per coordination with responsible resource agencies.</p> <ul style="list-style-type: none"> Project mitigation would include habitat purchase and in-lieu fees provided to compensate for temporary and permanent loss of habitat for both common wildlife and special-status species. Mitigation ratios for high-quality habitat purchase would be developed by the responsible agencies to compensate for the appropriate acreage disturbed from the project construction and operation. 	LS
Wildlife Impact 2: Construction activities could result in direct wildlife mortality and temporary displacement of wildlife.	LS	<p>Wildlife Impact 2 Mitigation: Construction activities and vehicle operation would be conducted to minimize potential disturbance of wildlife. The following would be required of construction contractors:</p> <ul style="list-style-type: none"> Limit speed of vehicles along the right-of-way and access roads to 15 to 20 mph in sensitive habitats. In addition, construction and maintenance employees would also be advised that care should be exercised when commuting to and from the project area to reduce road mortality. Prohibit vehicle operation off the right-of-way by construction workers, including construction work and employee access, except where specified by the landowner or land management agency or where roads already exist. 	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • Stockpiling of equipment and parking of vehicles would be undertaken to the maximum extent allowable on previously disturbed areas proximate to the construction zone. • Construction activities would attempt to utilize the minimum number and types of vehicles and equipment necessary on the right-of-way. • If feasible, and where appropriate, construction activities may be scheduled to avoid critical life stages of the desert mule deer. 	
Wildlife Impact 3: <i>Construction and operation of the transmission line would result in the potential hazard for raptor species throughout the life of the project.</i>	LS	<p>Wildlife Impact 3 Mitigation: <i>Design incorporation would minimize electrocution and collision potential.</i></p> <ul style="list-style-type: none"> • Current construction practices for major transmission systems now space conductors and ground wires sufficiently apart so that raptors, including bald eagles, the largest of the raptors, cannot contact two conductors or one conductor and a ground wire to cause electrocution (APLIC 1996). In addition, the conductor spacing for the 230-kV and 500-kV transmission lines would be a minimum of 20 feet and 35 feet, respectively. Both of these conductor spacing distances are significantly greater than the minimum distance that could result in simultaneous wing contact (e.g., the APLIC report shows that the wingspan of a bald eagle is from 6 feet 6 inches to 7 feet 6 inches; perched, a large raptors wing would reach out 39 inches to 51 inches from either side of the body). • Collision potential with the proposed transmission line has been minimized through placement and siting of the new transmission line within a corridor that has existing facilities which provide additional visual cues that often prompt birds to gain altitude and fly over the line (see Thompson 1978). 	LS
Wildlife Impact 4: <i>Increased public access opportunities resulting from the construction of new access roads along the Proposed Project transmission line could increase disturbance of resident wildlife species.</i>	S	<p>Wildlife Impact 4 Mitigation: <i>Restrict public access.</i></p> <ul style="list-style-type: none"> • During construction activities, exclusionary fencing via temporary and/or permanent construction barricades, fences with locked gates (at road intersections) and/or sign posting would be utilized, where necessary, to restrict public access in designated Wildlife Management Areas, National Wildlife Refuges, and designated critical areas by the responsible agencies. These barriers would be maintained by the applicant throughout the construction phase. • In addition, temporary constructed spur roads that travel through sensitive or designated management areas would be reclaimed to preclude unauthorized overland vehicle access. 	LS
Wildlife Impact 5: <i>Construction activities may occur within the vicinity of potential habitat for nesting raptors and migratory birds.</i>	S	<p>Wildlife Impact 5 Mitigation: <i>Conduct pre-construction surveys prior to project initiation.</i></p> <ul style="list-style-type: none"> • Prior to project construction activities, it would be determined whether any tree or shrub removal or clearing shall occur during the passerine and raptor nesting season (e.g., March 1 to September 30). If tree or shrub removals occur during the nesting season, a qualified biologist would conduct a focused survey for nests during the nesting season to identify any active nests in the Proposed Project disturbance areas. The survey shall be conducted no less than 14 days and no more than 30 days prior to the beginning of construction and subsequent tree or shrub removal. If nesting passerine or raptors are found during the focused survey, no construction or tree removal would occur within 500 feet of an active nest until the young have fledged (as determined by a qualified biologist). If nest trees are unavoidable, they would be removed only during the non-breeding season. If construction activities do not require any tree or shrub removal or clearing during the nesting season, no further mitigation would be necessary. 	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<u>Special-Status Species Impact 1:</u> <i>Possible disturbance of special-status plants.</i>	S	<p><u>Special-Status Species Impact 1 Mitigation:</u> <i>Survey and avoid and/or salvage special-status species plant in areas to be disturbed by project activities.</i></p> <ul style="list-style-type: none"> • All Coachella Valley milk-vetch plant(s) locations identified during the 2005 surveys, vegetation communities and plant locations will be delineated on aerial photography and incorporated into the Plan of Development. In addition, exclusion zones will be marked around the identified populations prior to construction. These designated exclusion zones would be marked in the field with stakes and flagging, and all construction-related activities would be prohibited within these zones, including vehicle operation, material and equipment storage, and other surface-disturbing activities. Where feasible, minor realignments would be implemented to avoid those populations within the designated tower pad and spur road locations. • Where avoidance is infeasible, a Plant Salvage Plan would be developed and submitted for approval from the appropriate responsible agencies. It is envisioned that the identified special-status plants would be hand salvaged and planted in an adjacent, undisturbed site. 	LS
<u>Special-Status Species Impact 2:</u> <i>Construction and operation activities could result in direct impacts to desert tortoise.</i>	S	<p><u>Special-Status Species Impact 2 Mitigation:</u> <i>Implement measures to decrease the likelihood of incidental take of desert tortoise and habitat mitigation.</i></p> <ul style="list-style-type: none"> • Category I and III desert tortoise habitat impacts would be compensated at ratios calculated using the formulas detailed in USFWS (2002b) Biological Opinion for the CDCA Plan. In addition, the final disturbance acreages would be added to the BLM and USFWS administered database for the cumulative one percent total disturbance for the Chuckwalla DWMA. • The Applicant will implement a Worker Environmental Awareness Program, including training, monitoring, and reporting. Contractors, their employees, and other personnel working in the area will receive training on special-status species potentially occurring in the Project area, with special emphasis on the desert tortoise. The program will develop brochures or other material describing this information and will be distributed to all employees and any other contractor that may enter the Project site. Information to be provided in the training will include the following: <ul style="list-style-type: none"> • The locations and types of sensitive biological resources on the Project site and adjacent areas. • Information regarding species and habitat identification and occurrence. • The natural history and endangerment factors for the desert tortoise. • The reasons for protecting these resources and the requirements of the federal and state Endangered Species Acts. • A description of the temporary and permanent measures being taken at the Project site to protect habitat and therefore avoid harming sensitive resources. • The responsibilities of workers, including reporting procedures if species are located during construction activities. 	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • Appropriate protocols for dealing with protected species when encountered in and around the linear facility corridors, and during vehicle trips to/from the work site. • Designated areas for driving and parking of vehicles. • Avoidance of areas around sensitive resources. • Reporting sightings of threatened and endangered species. • Avoidance of approaching and feeding wildlife. • Avoidance of pets on the work site. <p>Each participant in the on-site Worker Environmental Awareness Program will sign a statement declaring that the individual understands and will abide by the guidelines set forth in the program materials. The person administering the program will also sign each statement. New workers will receive training within 15 days of their first day of employment.</p> <ul style="list-style-type: none"> • Only biologists with authorized USFWS permits shall handle desert tortoises. All handling of desert tortoises and their eggs, relocation of desert tortoises, and excavation of burrows shall be conducted by an authorized biologist in accordance with the USFWS and/or BLM recommended protocol. • Only biologist(s) approved or authorized by the USFWS shall conduct pre-project clearance surveys for the desert tortoise or monitor project activities for compliance with any proposed protective measure issues in the Section 7 consultation. BLM shall submit the name(s) and credentials of the proposed project biologist(s) to the USFWS for review and approval at least 30 days prior to the onset of construction activities. No activities shall begin until a biologist(s) is approved by the USFWS. • Approximately 63 miles of the transmission alignment would overlap USFWS designated desert tortoise critical habitat. In order to comply with Section 9 of the ESA, a formal Section 7 consultation with USFWS would be required for potential impacts to desert tortoise, and their designated critical habitat. Results of the 2005 desert tortoise focused surveys are summarized in Appendix E. The results of the 2005 desert tortoise focused surveys will be used in the formal Section 7 Consultation process to be initiated with the USFWS. In addition, a 2081 permit or Consistency Determination from the CDFG would also be required. • Appendix G details specific monitoring and protection measures that would be implemented to minimize impacts to the desert tortoise during transmission line construction activities. 	
<u>Special-Status Species Impact 3:</u> <i>The Proposed Project transmission line could result in increased raven predation on desert tortoises.</i>	S	<p><u>Special-Status Species Impact 3 Mitigation:</u> <i>Implement measures to decrease raven populations.</i></p> <ul style="list-style-type: none"> • The BLM would participate in regional passive and active raven depredation control programs in or within 1 mile of desert tortoise habitat. • Design and operation features would be consistent with adopted land use plans. • All litter and debris shall be promptly removed and deposited in permitted landfills by the construction contractor. 	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Special-Status Species Impact 4: <i>Temporary and permanent loss of wildlife habitat and direct mortality to the Coachella Valley fringe-toed lizard.</i>	S	<p>Special-Status Species Impact 4 Mitigation: <i>Implement measures to decrease the likelihood of incidental take of Coachella Valley fringe-toed lizard and habitat mitigation.</i></p> <ul style="list-style-type: none"> • The Applicant would implement a Worker Environmental Awareness Program that details specific life history and graphic demonstrations of the Coachella Valley fringe-toed lizard. • To the extent possible, construction in Coachella Valley fringe-toed lizard habitat would be limited to the inactive season for the fringe-toed lizards, which is typically May through July. If construction operations occur outside this time period within suitable habitat of the Coachella Valley fringe-toed lizard, it should occur when the air temperatures 1 inch above ground in the shade are between 96° and 112°F. The lizards should be active within this temperature range and be able to avoid crushing by vehicles and personnel. • Pre-construction surveys for Coachella Valley fringe-toed lizard shall be conducted in areas of blows and habitat, including the blows and areas within the Coachella Valley National Wildlife Refuge and adjacent to Dillon Road. The pre-construction surveys would be conducted within 24 hours of ground disturbance and any individuals found would be captured and relocated to a USFWS/CDFG approved area. • To reduce direct impacts to fringe-toed lizards during construction, a qualified biologist would monitor all ground-disturbing activities in Coachella Valley fringe-toed lizard habitat. The monitor(s) would be present throughout construction and restoration activities in Coachella Valley fringe-toed lizard habitat to identify, salvage, and relocate any individuals to the nearest suitable habitat. The preferred method of relocation is to allow the animals to move out of the area on their own, but active removal by hand, snake stick or other non-lethal means may be necessary. • All construction activities shall be restricted to designated work areas, with all vehicle use occurring only on existing, designated roads. Any spoils should be stockpiled in previously disturbed areas, which have been examined for the presence of lizards (and cleared of lizards, if necessary) by a qualified biologist. • Spur roads and other areas to be disturbed should be examined for lizards (and cleared, if necessary) by a qualified biologist immediately prior to construction. • Based on consultations with the USFWS, the applicant proposes to compensate for permanent impacts to Coachella Valley fringe-toed lizard habitat. Therefore, a habitat assessment will be conducted to identify the extent and location of fringe-toed lizard habitat within the right-of-way between mileposts 89 to 116. The habitat assessment will be conducted in the spring of 2005. All Coachella Valley fringe-toed lizard habitat will be identified and mapped. • In order to comply with Section 9 of the ESA, a formal Section 7 consultation with USFWS would be required for potential impacts to Coachella Valley fringe-toed lizard, and those portions of the transmission line right-of-way that traverse their designated critical habitat. In addition, a 2081 permit or Consistency Determination from the CDFG would also be required. 	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<u>Special-Status Species Impact 5:</u> <i>Temporary and permanent loss of wildlife habitat and direct mortality to the flat-tailed horned lizard and Colorado Desert fringe-toed lizard.</i>	S	<p><u>Special-Status Species Impact 5 Mitigation:</u> <i>Implement measures to decrease the likelihood of incidental take of flat-tailed horned lizard and Colorado Desert fringe-toed lizard. Mitigation measures include, but are not limited to the following:</i></p> <ul style="list-style-type: none"> • Implement a worker education program. • Flag or otherwise mark the outer boundaries of the project construction areas where necessary to define the limit of work activities. • Minimize habitat degradation within sand dunes by limiting travel to existing roads and surface disturbance to previously disturbed areas. • A monitor would be required to remove flat-tailed horned or Colorado Desert fringe-toed lizards in this segment of the right-of-way. Pulling, staging, and equipment storage sites in this segment, where construction activities would be intense and extended over time, may be temporarily fenced with a lizard-proof fence (e.g., 0.5 inch mesh, buried), surveyed prior to construction and cleared of all flat-tailed horned and Colorado Desert fringe-toed lizards. If unfenced (e.g., tower pads), construction activities may require monitoring to assist in removal of all flat-tailed horned and Colorado Desert fringe-toed lizards. Specific removal and translocation criteria are defined in Foreman (1997). The surveying biologist must be familiar with flat-tailed horned and Colorado Desert fringe-toed lizard behavior and habitat associations and approved by CDFG. • Additionally, where flat-tailed horned and Colorado Desert fringe-toed lizards are found, compensation may be required for acreage that is disturbed or lost due to project construction or operation. If lack of occupation can be reasonably demonstrated, no compensation is required and mitigation measures described above can be decreased accordingly. 	LS
<u>Special-Status Species Impact 6:</u> <i>Potential impacts to the desert rosy boa.</i>	S	<p><u>Special-Status Species Impact 6 Mitigation:</u> <i>Implement measures to decrease the likelihood of incidental take of desert rosy boa.</i></p> <ul style="list-style-type: none"> • To avoid construction-related mortalities of desert rosy boa, it is recommended that construction in or near rocky areas be conducted during daylight hours. This species is nocturnal and individuals can be generally avoided during daytime construction. A construction monitor shall survey appropriate rocky outcropping habitat prior to commencing construction activities. In addition, construction activities, shall to the extent practicable, avoid destruction of rocky outcrops. 	LS
<u>Special-Status Species Impact 7:</u> <i>Potential impacts to Couch's spadefoot.</i>	S	<p><u>Special-Status Species Impact 7 Mitigation:</u> <i>Identify and avoid ephemeral pools containing Couch's spadefoot larvae.</i></p> <ul style="list-style-type: none"> • Construction disturbances to rain pools or temporary overflow areas could disrupt breeding activities (and annual production), potentially affecting local populations of Couch's spadefoot toad. If there are local thunderstorms that provide substantial moisture under warm conditions (temperatures over 90 degrees Fahrenheit) in July, August, or September, and if construction has not already been completed in that right-of-way area, a qualified biologist will examine persistent pools for Couch's spadefoot. If any Couch's spadefoot toads are found, the CDFG will be immediately notified and an appropriate avoidance strategy developed. At a minimum, the temporary pools would be monitored daily and no construction activities conducted within 150 feet of temporary pools. If water fails to persist within shallow pools for 10 days, or if no Couch's spadefoot toad eggs, tadpoles, or toads are found within 10 days, then construction may resume in the area. A report on the findings would be submitted to CDFG within 30 days of completion of construction activities. 	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<u>Special-Status Species Impact 8:</u> <i>Impacts to burrowing owls.</i>	S	<p><u>Special-Status Species Impact 8 Mitigation:</u> <i>Implement measures to decrease the likelihood of incidental take of burrowing owls.</i></p> <ul style="list-style-type: none"> • Conduct pre-construction surveys to identify occupied burrows. If owls are present on the project site, CDFG would be consulted to determine the best method for minimizing disturbance. If owls are present, and nesting is not occurring, owls may be removed via a CDFG-approved passive relocation method. Owl removal is recommended between September 1 and January 31, to avoid disruption of breeding activities. During the nesting season (February 1 through August 31), if nesting owls are discovered within the construction right-of-way, CDFG would be consulted to determine adequate nest buffers until fledging has occurred. Following fledging, owls may be passively relocated. • If any active burrows are damaged by construction activities, CDFG would be consulted to determine off-site compensation for loss of occupied habitat. Generally, compensation lands for desert tortoise may apply to burrowing owl compensation. • Unoccupied burrows identified within the construction right-of-way during the pre-construction surveys would be collapsed or excavated prior to construction activities to prevent owl occupancy. • If artificial burrows are installed to minimize the effect of burrow loss, they would be placed within the home range of individual owls affected prior to burrow excavation or installment of one-way doors. • If active burrows (e.g., eggs or fledglings) are discovered during the breeding season within the construction work area, construction activities would be curtailed within a 250 foot buffer area until the young have left the burrow (CDFG Staff Report on Burrowing Owl Mitigation, 1995). 	LS
<u>Special-Status Species Impact 9:</u> <i>Impacts to nesting Loggerhead Shrike, LeConte's Thrasher, and Black-tailed Gnatcatcher.</i>	S	<p><u>Special-Status Species Impact 9 Mitigation:</u> <i>Implement measures to decrease the likelihood of destruction of active loggerhead Shrike, LeConte's Thrasher, and black-tailed gnatcatcher nests.</i></p> <ul style="list-style-type: none"> • Removal of nesting substrate (e.g., trees and shrubs) would be performed outside the active breeding season for each of the three species, typically March 1 to September 30. If this is not feasible, a pre-construction survey, in conjunction with the focused special-status plant surveys, would be conducted on potential disturbance areas to identify any active nests. • If an active nest(s) are found and construction would occur within 250 feet, BLM's Compliance Inspector would consult with CDFG and/or USFWS to determine the most appropriate preventive action. It is envisioned that two scenarios are available for construction to proceed: <ul style="list-style-type: none"> a) Construction would be postponed within 250 feet of active nests until a qualified biologist determines that the young have fledged; or b) The applicant secures written authorization from CDFG to proceed with construction. CDFG may require that the nest(s) be continually monitored while construction continues to determine if such activities may result in adults abandoning the eggs or hatchlings and agrees to abide by any conditions. 	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<u>Special-Status Species Impact 10:</u> <i>Impacts to prairie falcon.</i>	LS	<u>Special-Status Species Impact 10 Mitigation:</u> <i>Implement measures to decrease the likelihood of incidental take of prairie falcon.</i> <ul style="list-style-type: none"> As stated in Wildlife Impact 3 above, the design of the facility within an existing corridor would provide additional visual cues that often prompt falcons to gain altitude and fly over the line, and the conductor spacing would be greater than the maximum wing span distance of a prairie falcon in flight. 	LS
<u>Special-Status Species Impact 11:</u> <i>Impacts to chuckwalla.</i>	S	<u>Special-Status Species Impact 11 Mitigation:</u> <i>Implement measures to decrease the likelihood of chuckwalla mortality.</i> <ul style="list-style-type: none"> A qualified biologist would monitor construction activities in designated right-of-way sections that contain rocky outcroppings in order to identify and relocate any chuckwalla. 	LS
<u>Special-Status Species Impact 12:</u> <i>Impacts to Coachella Valley round-tailed ground squirrel.</i>	S	<u>Special-Status Species Impact 12 Mitigation:</u> <i>Implement measures to decrease the likelihood of Coachella Valley round-tailed ground squirrel mortality.</i> <ul style="list-style-type: none"> A qualified biologist would monitor construction activities in designated right-of-way sections in order to site and relocate any Coachella Valley round-tailed ground squirrel. The preferred method of relocation is to allow the squirrel to disperse out of the area on its own, but active removal may be necessary. If active burrows are identified during the focused pre-construction surveys, they would be flagged and evaluated to determine if active removal, salvaging, or passively excluding individuals or burrow collapse would negate any future potential impact. 	LS
<u>Waters of the U.S. Impact 1:</u> <i>Possible short-term disturbance of other "waters of the U.S."</i>	S	<u>Waters of the U.S. Impact 1 Mitigation:</u> <i>The following actions and all permit conditions issued within the COE Nationwide Permit would be implemented by IID's construction contractor. BLM's Compliance Inspector and IID's Environmental Compliance Monitor(s) would routinely inspect construction activities to verify that these measures and permit conditions have been implemented.</i> <ul style="list-style-type: none"> Upon completion of the final engineering design including tower structure placement via surveying, a "waters of the U.S." survey using the 1987 COE Manual would be completed and submitted to the COE. It is envisioned that a Nationwide 12 Permit would be required prior to project construction activities. The Proposed Alternative would be designed consistent with COE guidance to minimize impacts to floodplains and jurisdictional waters of the U.S., and construction of the transmission line would incorporate best management practices, include erosion control measures, and comply with all COE and water quality permit terms and conditions to protect water quality in the project area. Spur roads and tower pad placement through wide washes would be minimized during the design engineering to the maximum extent allowable. Where such facilities are infeasible outside identified washes, habitat disturbance and tree removal would be minimized. These identified washes would be flagged prior to disturbance by a qualified resource specialist, and all construction activities would take place inside designated areas in order to ensure minimum habitat disturbance. "Waters of the U.S." would be restored in a manner that encourages vegetation to reestablish to its pre-construction condition and reduces the effects of erosion on the drainage system. Additional compensatory, restoration, or avoidance mitigation measures may be identified by regulatory agencies (e.g., COE, USFWS) as part of the permitting process and would be implemented into the Plan of Development. 	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
ALTERNATIVE A			
<i>Alternative A would result in similar direct and indirect impacts on biological resources as the Proposed Project. Although the temporary and permanent disturbance acreages for Variation A-1 differ from those of the Proposed Project, impacts and mitigation measures would be similar as the line traverses roughly the same habitats to those identified in Vegetation Impact 1 for the Proposed Project. Corresponding mitigation measures are expected to be sufficient to reduce potentially significant impacts to a less than significant level.</i>			
ALTERNATIVE B			
<i>Alternative B would result in similar direct and indirect impacts on biological resources as the Proposed Project. Construction and operation of Option B-1 Route Alternative would result in similar direct and indirect impacts on biological resources as those discussed above for the Proposed Project. Corresponding mitigation measures are expected to be sufficient to reduce potentially significant impacts to a less than significant level.</i>			
ALTERNATIVE C			
<i>Alternative C would result in similar direct and indirect impacts on biological resources as the Proposed Project. Corresponding mitigation measures are expected to be sufficient to reduce potentially significant impacts to a less than significant level.</i>			
Section 3.2 – Cultural Resources			
PROPOSED PROJECT (VARIATION PP1)			
Cultural Resources Impact 1: Construction and operation of the Proposed Project could result in direct impacts to NRHP-Eligible Sites.	S	<p>Cultural Resources Impact 1 Mitigation: Preparation of a Treatment Plan for avoiding and mitigating unavoidable direct adverse effects on resources eligible for National Register listing will be prepared and implemented.</p> <p>Treatment of cultural resources will follow the procedures established by the ACHP for compliance with Section 106 of the NHPA and also for compliance with CEQA. A Treatment Plan will be prepared to identify methods of avoiding or mitigating effects. Prior to that, a pedestrian inventory will be undertaken of all portions that have not been previously surveyed or identified by BLM as requiring inventory to identify properties that are eligible for the NRHP (and <i>de facto</i>, the CRHR). Those sites not already evaluated for NRHP eligibility will be evaluated based on surface remains, subsurface testing, archival and ethnographic sources, and in the framework of the historic context and important research questions of the Project Area. Sites determined not eligible will receive no further treatment. A cultural resources evaluation report will be submitted to BLM for review, and for consultation purposes, as part of the development of the Treatment Plan.</p> <p>Avoidance</p> <p>It is the policy of the BLM to avoid adverse effects to cultural resources to the extent possible. Avoidance of cultural resource sites is the preferred measure, and all impacts to eligible sites will be avoided to the greatest extent possible. As Proposed Project design plans are being finalized, the designated cultural resource specialist and BLM staff will review 1":400' or better scale orthotopo maps of Proposed Project impacts and provide an assessment of direct adverse effects to National Register eligible or unevaluated cultural resources. Recommendations for plan adjustments to avoid all eligible resources to the extent feasible will be made and Proposed Project design adjustments may be necessary.</p> <p>Final design of the Proposed Project (for example, tower placement and work areas will include measures to avoid National Register eligible sites where feasible. The final list of sites to be avoided during construction will be specified in the Treatment Plan. The Treatment Plan will also include detailed measures to ensure this avoidance is implemented during construction.</p> <p>Prior to the start of earth disturbing activities or Proposed Project site preparation, IID shall provide the designated cultural resources specialist and the BLM with final maps and/or drawings showing the area of potential effects of the</p>	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>Proposed Project and all linear facilities. Maps provided will include 1":400' or better scale orthotopo maps showing all Proposed Project impacts. If the footprint of the Proposed Project changes, IID shall provide maps and drawings reflecting these changes to the cultural resources specialist and the BLM within five days. Maps shall show the location of all areas where surface disturbance may be associated with Proposed Project-related access roads, staging areas, and any other Proposed Project components.</p> <p>Treatment Plan</p> <p>A Treatment Plan will be prepared for the project. Methods for mitigation of adverse effects and avoidance of impacts during construction will be clearly identified in the Treatment Plan, which will include a mitigation monitoring plan. A qualified archaeological monitoring team will be employed to ensure implementation of the mitigation monitoring plan. Monitors will have the authority to halt construction activities in the immediate construction area if these activities disturb a site that has been identified for avoidance. Sites within 50 feet of the impacted areas will be monitored to ensure impacts do not occur during construction. Specific measures may include flagging and staking and/or the placement of temporary fencing to ensure impacts do not occur during construction. These measures will be designed on a case-by-case basis and in a manner that does not draw attention to a specific site location. Specific procedures, the role of monitors, and the level of Native American participation will be identified in the mitigation monitoring plan portion of the Treatment Plan. The objective of the mitigation monitoring portion of the Treatment Plan is to ensure that cultural resources that are National Register eligible and can feasibly be avoided through planning are not adversely affected by the Proposed Project.</p> <p>As part of the Treatment Plan for mitigation of unavoidable direct adverse effects to National Register eligible resources, the designated cultural resources specialist will prepare a research design and a scope of work for evaluation of cultural resources and data recovery or additional mitigation of National Register eligible sites that cannot be avoided. IID shall submit the proposed research design and scope of work to BLM's archaeologist for review and consultation with SHPO and Native American groups as necessary and appropriate.</p> <p>The proposed research design and scope of work shall include (but not be limited to):</p> <ul style="list-style-type: none"> • A discussion of the methods to be used to recover additional information and any needed analysis to be conducted on recovered materials; • A discussion of the research questions that the materials may address or answer by the data recovered from the Proposed Project; and • A discussion of possible results and findings. <p>The objective of mitigation through data recovery is to acquire substantive data relative to the research issues identified in the research design of the Treatment Plan. These data are intended to provide information important to history or prehistory relative to the characteristics that rendered the site eligible for inclusion in the National Register. Data recovery on most sites would consist of surface collection and sample excavation. Only on very small sites would complete excavation or collection be considered an appropriate treatment. Other forms of mitigation may also include the collection of oral histories, historical documentation, including architectural and engineering documentation, preparation of a scholarly work, or some form of public awareness or interpretation.</p>	

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>IID shall ensure that the authorized cultural resources specialist performs the data recovery, preparation for analysis, preparation for curation, and delivery for curation of all cultural resource materials. IID shall provide a copy of a curation agreement from a public repository that meets the requirements set out in 36 CFR 79 for the curation of cultural resources. In addition, IID shall ensure that all cultural resource materials, maps, and data collected during data recovery and mitigation for the Proposed Project are delivered to the repository following the approval of the Cultural Resources Report. The Proposed Project owner shall pay any fees for curation required by the repository. The BLM will retain ownership of artifacts collected from BLM managed lands.</p> <p>Data Recovery to Reduce Adverse Effects</p> <p>Planning for full-scale data recovery excavation to mitigate the loss of substantial and significant archaeological deposits will be based on the site's research potential beyond that realized during site recording and testing operations. The data gathered during the test investigation and the research design will guide the planning of full-scale excavation. The cultural resources specialist will consult with the BLM and IID regarding excavations for mitigation. Data recovery methods, sample sizes, and procedures will be detailed in the Treatment Plan for SHPO review.</p> <p>If data recovery is necessary, sampling for data recovery excavations will follow standard statistical sampling methods, but sampling will be confined, as much as possible, to the direct impact area.</p>	
<p><u>Cultural Resources Impact 2:</u> <i>Construction activities could result in the discovery of previously unknown prehistoric and historic resources.</i></p>	S	<p><u>Cultural Resources Impact 2 Mitigation:</u> <i>Designate a cultural resources specialist to be available to address discovered resources.</i></p> <p>Because unanticipated discoveries may occur, the designated cultural resources specialist shall be available at all times to respond within 48 hours to adjustments in the Proposed Project. Addressing discovered resources may include additional testing and significance evaluation. If unanticipated discoveries are made, the archaeological monitor, or representative of IID or BLM shall have the authority to temporarily halt or redirect construction activities. The designated cultural resource specialist shall be notified and IID or IID's representative shall halt construction in the immediate area in order to protect the discovery from further damage; Proposed Project construction may continue elsewhere on the Proposed Project. If such resources are found, the specialist shall contact the BLM's archaeologist as soon as possible.</p> <p>If such resources are found and the BLM's archaeologist determines that they are or may be significant, the halting or redirection of construction shall remain in effect until:</p> <ul style="list-style-type: none"> the specialist, IID, and the BLM have conferred and determined what, if any, data recovery or other mitigation is needed; consultation with SHPO and/or Native American groups is completed as appropriate and necessary; and any needed data recovery and mitigation has been completed. <p>If data recovery or other mitigation measures are required, the designated cultural resources specialist and team members shall monitor construction activities and implement the agreed upon data recovery and mitigation measures, as needed.</p>	LS
<p><u>Cultural Resources Impact 3:</u> <i>The Proposed Project could affect resources within sensitivity zones.</i></p>	S	<p><u>Cultural Resources Impact 3 Mitigation:</u> Implement Cultural Resources Impact 1 Mitigation.</p>	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Cultural Resources Impact 4: <i>Construction activities and disturbance, and the placement of project-related facilities could adversely affect TCPs.</i>	S	Cultural Resources Impact 4 Mitigation: <i>Consultation with Native American groups.</i> Additional consultation with concerned Native American groups is recommended to determine if the archaeological sites have additional sensitivities as TCPs. The localities and sites identified thus far should not be considered exhaustive, and additional sites may also possess properties with special concerns. These include any habitation sites with the potential for human remains, sites with rock art, cultural landscapes, and certain trails. Quechan trails and ceremonial routes along the Colorado River and certain branches to the west are particularly sensitive.	LS
ALTERNATIVE A			
<i>The Alternative A study corridor contains 12 significant cultural resources (as opposed to 8 sites identified for the Proposed Project). Most of the cultural resources along this alignment are within the Alligator Rock Complex, Camp Young, and the Indio Hills Complex. The potential for impacts and recommended mitigation measures are similar to those discussed in Cultural Resources Impacts 1, 2, 3, and 4, and associated mitigation measures, identified for the Proposed Project. Mitigation measures are expected to be sufficient to reduce potentially significant impacts to a less than significant level.</i>			
ALTERNATIVE B			
<i>A total of 28 significant cultural resource sites have been identified within the Alternative B study corridor for this alignment (as opposed to 8 sites identified for the Proposed Project). Most of the cultural resources along this alignment are within the Palo Verde area and at the end of the Chocolate Mountains. Although known cultural resources within the Alternative B alignment area differ from those of the Proposed Project, the potential for impacts and recommended mitigation measures are similar to those discussed in Cultural Resources Impacts 1, 2, 3 and 4, and associated mitigation measures, identified for the Proposed Project in Section 3.2.3.2, above. Mitigation measures are expected to be sufficient to reduce potentially significant impacts to a less than significant level. Route Option B-1 would serve to avoid the Palo Verde Mountains sensitivity zone, but would then result in the alignments encroachment on the Palo Verde Point sensitivity zone.</i>			
ALTERNATIVE C			
<i>The Alternative C study corridor contains 12 significant cultural resources (as opposed to 8 sites identified for the Proposed Project). Most of the cultural resources along this alignment are within the McCoy Mountains Complex, Ford Dry Lake Complex, Alligator Rock Complex, Camp Young, and the Indio Hills Complex. The potential for impacts and recommended mitigation measures are similar to those discussed in Cultural Resources Impacts 1, 2, 3, and 4, and associated mitigation measures, identified for the Proposed Project. Mitigation measures are expected to be sufficient to reduce potentially significant impacts to a less than significant level.</i>			
Section 3.3 - Air Quality			
PROPOSED PROJECT (VARIATION PP1)			
Air Quality Impact 1: <i>Construction of the Proposed Project would result in significant exhaust and fugitive dust emissions.</i>	S	Air Quality Impact 1 Mitigation: <i>The following mitigation measures would be implemented during the construction of the Proposed Project and Variation PP1 to reduce the exhaust emissions of CO, NO_x, VOC, SO_x, and PM₁₀:</i> <ul style="list-style-type: none"> • Heavy duty off road diesel engines over 50 horsepower will meet Tier I ARB/EPA standards for offroad equipment and will be properly tuned and maintained to manufacturers' specifications to ensure minimum emissions under normal operations; • Construction vehicles will have 1996 and newer model engines; • Diesel fuel for vehicles and equipment operating within the boundaries of the SCAQMD will be purchased in the SCAQMD (SCAQMD adopted a 15 ppmw sulfur limit for diesel fuel sold in the District effective January 2005). • Visible emissions from all heavy duty off road diesel equipment shall not exceed 20 percent opacity for more than three minutes in any hour of operation; 	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> • A comprehensive inventory (i.e. make, model, year, emission rating) of all heavy-duty off-road equipment (50 horsepower or greater) that will be used an aggregate of 40 hours per week or more during the duration of the construction project will be submitted to the Districts. <p>Due to the remote locations, dry desert environment, and unique wildlife hazard issues specific to the project region, a combination of both water and chemical dust suppression will be utilized. Controlling dust in the desert is further complicated by the fact that water is an attractant to desert wildlife including the endangered Desert Tortoise. The use of petroleum and related products create potential soil and water pollution in sensitive desert environments.</p> <p>Water will be used for dust suppression when reasonably available and when water will not create wildlife hazard in construction zones. In cases where water is not feasible, chemical dust suppression methods, such as organic polymers or wood derivative compounds, will be implemented when dust suppression is warranted. These compounds will be applied as needed but are expected to require limited application.</p> <p>The following mitigation measures would be implemented for the Proposed Project to reduce emission fugitive dust (including PM₁₀):</p> <ul style="list-style-type: none"> • Apply water or chemical dust suppressants to unstabilized disturbed areas and/or unpaved roadways in sufficient quantity and frequency to maintain a stabilized surface. • Water or water-based chemical additives will be used in such quantities to control dust on areas with extensive traffic including unpaved access roads. Water, organic polymers, lignin compounds, or conifer resin compounds will be used depending on availability, cost, and soil type. • Surfaces permanently disturbed by construction activities will be covered or treated with a dust suppressant within five days of the completion of activities at each site of disturbance. • Vehicle speeds on unpaved roadways will be restricted to 15 mph. • Vehicles hauling dirt will be covered with tarp or other means. • Site construction workers will be staged off-site at or near paved intersections and workers will be shuttled in crew vehicles to construction sites. 	
ALTERNATIVE A			
<i>Air quality impacts associated with Alternative A and Option A1 are virtually identical to those identified above for the Proposed Project, and the mitigation measures identified for the Proposed Project would also be appropriate for Alternative A impacts.</i>			
ALTERNATIVE B			
<i>As shown in Tables 3.3-9A and 3.3-9B, in the MDAQMD portion and ICAPCD portion, respectively, mitigated pollutant emissions produced during the construction of Alternative B would not exceed MDAQMD significant thresholds for CO, NOX, ROG, SOx, and PM10. Pollutant emissions would not exceed ICAPCD significant thresholds for CO, ROG, SOx, and PM10, but would be significant for NOx. Mitigation measures identical to the mitigation measures recommended for the Proposed Project are proposed for this alternative.</i>			
ALTERNATIVE C			
Air Quality Impact C1: Construction of Alternative C would result in significant NOx emissions.	S	As shown in Tables 3.3-10A and 3.3-10B, mitigated pollutant emissions in the MDAQMD portion and ICAPCD portion, respectively, produced during the construction of the Alternative C would exceed MDAQMD and SCAQMD significant thresholds for NO _x . Alternative C construction emissions would not exceed federal <i>de minimis</i> thresholds established by the General Conformity rule in any jurisdiction. Mitigation measures identical to the mitigation measures recommended for the Proposed Project are proposed for this alternative.	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Section 3.4 – Water Resources			
PROPOSED PROJECT (VARIATION PP1)			
Water Resources Impact 1: <i>Construction activities could result in a discharge of hazardous materials into a watercourse or wash.</i>	S	<p>Water Resources Impact 1 Mitigation: <i>A SWPPP would be prepared as required by the State Water Resources Control Board's General Construction Activity Storm Water Permit. The SWPPP shall include:</i></p> <ol style="list-style-type: none"> 1) An outline of the areas of vegetative soil cover or native vegetation onsite that will remain undisturbed during the construction project. 2) An outline of all areas of soil disturbance including cut or fill areas which will be stabilized during the rainy season by temporary or permanent erosion control measures, such as seeding, mulch, or blankets, etc. 3) An outline of the areas of soil disturbance, cut, or fill which will be left exposed during any part of the rainy season, representing areas of potential soil erosion where sediment control BMPs are required to be used during construction. 4) A proposed schedule for the implementation of erosion control measures. <ol style="list-style-type: none"> (a) The SWPPP shall include a description of the BMPs and control practices to be used for both temporary and permanent erosion control measures. (b) The SWPPP shall include a description of the BMPs to reduce wind erosion at all times, with particular attention paid to stockpiled materials. <p>In addition, the SWPPP would include the following spill prevention and control measures:</p> <ol style="list-style-type: none"> a) Minimize on-site use of hazardous materials and use materials with the lowest toxicity practicably available. b) Refuel and maintain of vehicles and equipment only in designated areas that are either bermed or covered with concrete or asphalt to control potential spills. c) Conduct refueling only with approved pumps, hoses, and nozzles. d) Service and maintenance of vehicles and equipment will be conducted only by authorized personnel. e) Place catch-pans under equipment to capture potential spills during servicing. f) Place all disconnected hoses in containers to collect residual fuel from the hose. g) Shut down vehicle engines during refueling. h) No smoking, open flames or welding will be allowed in refueling or service areas. i) Perform refueling away from bodies of water to prevent contamination of water in the event of a leak or spill. j) When refueling is completed, the service truck will leave the project site. k) Provide service trucks with fire extinguishers and spill containment equipment, such as absorbents. l) Should a spill contaminate soil, place the soil in containers and dispose of as a hazardous waste. m) Inspect all containers used to store hazardous materials at least once per week for signs of leaking or failure. All maintenance and refueling areas will be inspected monthly. Results of inspection will be recorded in a logbook that will be maintained on-site. 	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Water Resources Impact 2: <i>Construction activities could result in discharges of sediments into watercourses creating turbidity.</i>	S	<p>Water Resources Impact 2 Mitigation: A SWPPP will be prepared as required by the State Water Resources Control Board's General Construction Activity Storm Water Permit.</p> <p>In addition to the measures identified above (i.e., Water Resources Impact 1 Mitigation), the SWPPP would also include the following measures:</p> <ul style="list-style-type: none"> (a) Minimize soil disturbances within a watercourse or potential watercourse channels. (b) If disturbance of a watercourse or potential watercourse is necessary, perform all construction activities when flows in the channel are low or during months when rainfall is minimal. (c) After construction activities have been completed in an area, appropriately spread or stabilize the exposed or stockpiled soil to prevent entrainment during a discharge event. (d) Prepare and implement a Reclamation Plan (see Appendix E). 	LS
Water Resources Impact 3: <i>Wells and springs adjacent to construction areas could be disturbed or contaminated.</i>	S	<p>Water Resources Impact 3 Mitigation:</p> <ul style="list-style-type: none"> (a) Surveys of the route will be conducted prior to construction to identify springs and their well depths, flow conditions, and hydrogeologic relationships within 1,000 feet of construction activities. This survey will also include assessing sensitive endemic species located near these wells and springs. Construction activities will be limited in the following manner: (1) construction activities will not be carried out within 100 feet of a well without using BMPs; (2) blasting will be prohibited within 500 feet of a well; and (3) only size limited blasting will be authorized within 1,000 feet of a well. If damage occurs to a well or spring, the affected area will be repaired by the contractor. (b) The use or storage of hazardous materials near a well or spring will be prohibited. Additionally, special precautions will be implemented to prevent spills of hazardous materials, discharges of foreign materials, and sedimentation discharges near a well or spring. (c) Dewatering activities for tower footings or other deep excavations will be planned to minimize the effect on wells and springs. 	LS
Water Resources Impact 4: <i>Tower locations may include areas subject to flood events that could result in damage and risk of failure of project facilities.</i>	S	<p>Water Resources Impact 4 Mitigation:</p> <ul style="list-style-type: none"> (a) The placement of a tower in an alluvial fan where it emerges at a canyon mouth and at the front of a mountain should be avoided. Locating structures near watercourses or washes with sizable catchments in nearby mountains which are generally prone to flash floods should be avoided. Historical review and interviews with knowledgeable individuals or groups about past flash flooding events in the area should be undertaken. (b) If placement of a tower in an area described in a, above, cannot be avoided, a geotechnical engineer should be consulted regarding the design of the tower at risk locations. 	LS
Water Resources Impact 5: <i>Use of water during construction could deplete available resources.</i>	LS	Approximately 440,000 to 490,000 gallons (1.35 to 1.5 af) of water would be needed to mix concrete for transmission tower footings. Other water uses at the site such as dust control and potable water for drinking may be necessary. Water could be obtained from a variety of currently available sources. The major water purveyors along the alignment of the Proposed Project include the IID, Coachella Valley Water District, Palo Verde Irrigation District, and cities of Blythe, Indio, Palm Springs, and Coachella. Impacts to water supplies would not be significant because: 1) water would be	LS

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Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		obtained from more than one existing source, 2) impacts would be short term (primarily during foundation installation), and 3) limited water would be used for suppression of fugitive dust on access roads (a road sealant emulsion would be used primarily for dust suppression on access roads).	
ALTERNATIVE A			
<i>Water resources impacts associated with Alternative A and Variation A-1 are similar to those identified above for the Proposed Project, and mitigation measures identified for the Proposed Project would also be appropriate for Alternative A impacts. Mitigation measures are expected to be sufficient to reduce potentially significant impacts to a less than significant level. Potential differences in the impacts are discussed below.</i>			
ALTERNATIVE B			
<i>Water resources impacts associated with Alternative B would be similar to those identified above for the Proposed Project. Because Alternative B-1 runs up a large sandy wash after it diverges from Alternative B, it has an increased potential for erosion. Additionally, the Alternative B-1 alignment option would be partially located within the Colorado River floodplain. However, potential erosion associated with Colorado River flood flows within the floodplain have been significantly reduced by impoundment facilities along the Colorado River. Mitigation measures are expected to be sufficient to reduce potentially significant impacts to a less than significant level. Potential differences in the impacts are discussed below.</i>			
ALTERNATIVE C			
<i>Water resources impacts associated with Alternative C are similar to those identified above for the Proposed Project, and mitigation measures identified for the Proposed Project would also be appropriate for Alternative C impacts. Mitigation measures are expected to be sufficient to reduce potentially significant impacts to a less than significant level. Potential differences in the impacts are discussed below.</i>			
Section 3.5 – Geology and Soils			
PROPOSED PROJECT (VARIATION PP1)			
Geology and Soils Impact 1: <i>Construction of Proposed Project facilities, including tower footings and access roads in areas with steep or unstable slopes, could create hazardous conditions that may pose a threat of disruption to Proposed Project facilities.</i>	S	<p>Geology and Soils Impact 1 Mitigation:</p> <p>(a) IID will retain a qualified engineering geologist to evaluate the potential for geotechnical hazards and unstable slopes on the centerline route and areas of new road construction or widening on slopes with over 15 percent gradient. The engineering geologist will evaluate the nature of the steep slope and/or unstable soil hazard at tower sites with these constraints and the immediate vicinity to allow options for avoiding the hazard. The evaluation should be based on an inspection of all sites where towers or roads will be constructed with slopes of 15 percent or greater, or have identified slope instability hazards. Soil testing will be conducted, if needed, to ascertain the depth, lateral extent of unstable materials, and potential hazards both upslope, and down slope of the site.</p> <p>The engineering geologist will prepare a report that includes recommendations for moving the towers or roads, or identifies construction methods to stabilize the site or off-site areas that would threaten the hazard sites if the structures cannot be moved. IID will incorporate the recommendations of the engineering geologist into its COM Plan, including construction drawings and details for grading, drainage, and specialized slope treatment (e.g., installation of retaining walls, wire retention structures, gabions, berms to deflect debris avalanches, etc.). IID's construction contractor will implement the plans, and IID's quality assurance inspectors and the environmental monitors will inspect and certify that the slopes have been constructed and stabilized in accordance with details in the COM Plan.</p> <p>(b) Under no circumstances will cut or fill slopes be allowed to pose a temporary or long-term hazard to the Proposed Project facilities or to off-site property in accordance with criteria set in the COM Plan. All cut slopes will be cut at an angle of repose and/or benched or otherwise protected to ensure long-term stability. IID will commit to</p>	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		appropriate re-contouring, erosion control, and reseeding of all cut-and-fill slopes. IID will also ensure the long-term stability of all slopes. Monitoring and stability requirements will be detailed in the Reclamation section of the COM Plan. (c) To reduce the environmental impacts of slope alteration, all practicable measures will be taken to avoid locating transmission line footings and roads on sites that have severe geotechnical hazards requiring substantial grading and other engineering of cut and fill slopes.	
<u>Geology and Soils Impact 2:</u> <i>Seismic activity in the project area could cause damage to Proposed Project facilities.</i>	S	<u>Geology and Soils Impact 2 Mitigation:</u> (a) To reduce the hazards of damage from ground rupture, all practicable measures will be taken to avoid sites for transmission towers that are located within known fault zones. Fault zones with a record of historic or Holocene (within the last 10,000 years) fault displacement will be considered capable fault zones. A geotechnical engineering investigation consistent with California geologic and engineering standards will be conducted for the Proposed Project by a licensed geotechnical engineer. The geotechnical engineer will prepare a report that summarizes the results of a field investigation, including site inspection and soil testing, potential geologic hazards including fault rupture and severe secondary effects of earthquakes (e.g., liquefaction), and design criteria and construction methods to effectively construct the Proposed Project with an acceptable level of risk. The report will address all geologic and geotechnical factors related to the design and construction of the Proposed Project. The geotechnical engineering investigation will delineate areas of active and potentially active faults. To the extent possible, it will identify fault traces and locate them in the field so faults can be avoided during tower siting. A more detailed geologic investigation may be necessary in some active and potentially active fault areas if the trace is not sufficiently defined by surface geologic features. (b) All practicable precautions will be taken to design and construction of transmission towers and new substations, substation facility improvements, and equipment to withstand the projected ground shaking associated with the MPE in the area. This includes secondary hazards induced by earthquakes (liquefaction, lurching, lateral spreading, rapid differential settlement, induced landslides, and rock-fall avalanche). The MPE represents the strongest earthquake likely to occur over the design life of the Proposed Project. The geotechnical engineering investigation will provide regional seismic criteria for the design of the Proposed Project facilities including transmission components, new access roads, and substation additions. To minimize potential damage from ground shaking and secondary earthquake effects, transmission line structures will be designed using project-specific criteria in accordance with the latest revision of the NESC. New substation and substation facilities improvements will meet the appropriate design criteria contained in the most current applicable edition of the UBC.	LS
<u>Geology and Soils Impact 3:</u> <i>Increased soil compaction and rutting in the transmission line corridor and substation could occur during construction, operation, and maintenance of the Proposed Project.</i>	LS	<u>Geology and Soils Impact 3 Mitigation:</u> (a) Construction, operation, and maintenance activities will be restricted when the soil is too wet to adequately support construction or maintenance equipment (i.e., when heavy equipment creates ruts in excess of 4 inches deep over a distance of 100 feet or more in wet or saturated soils). This standard will not apply in areas with silty soils, which easily form depressions even in dry weather. Where the soil is deemed too wet, one or more of the following measures will apply:	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ol style="list-style-type: none"> 1) When feasible, reroute all construction or maintenance activities around the wet areas while ensuring that the route does not cross sensitive resource areas. 2) If wet areas cannot be avoided, implement BMPs for use in these areas during construction and improvement of access roads, and their subsequent reclamation. This includes use of wide-track or balloon-tire vehicles and equipment, or other weight dispersing systems approved by the appropriate resource agencies. It also may include use of geotextile cushions, pre-fabricated equipment pads, and other materials to minimize damage to the substrate where determined necessary by resource specialists. If BMPs cannot be successfully applied to wet or saturated soil areas, construction or routine maintenance activities would not be allowed in these areas until the Project environmental monitor(s) determine it is acceptable to proceed. 3) Limit access of construction equipment to the minimum amount feasible, remove and separate topsoil in wet or saturated areas, and stabilize subsurface soils by grading dewater problem areas, utilizing weight dispersion mats, and/or maintaining erosion control measures such as surface drilling and back-dragging. After construction is complete, regrade and recontour the area, replace topsoil, and reseed to achieve the required plant densities. 	
<u>Geology and Soils Impact 4:</u> <i>Proposed Project activities on coarse to very coarse textured soils, alkaline/saline soils, or soils with shallow depth to bedrock could delay or reduce reclamation success.</i>	LS	<u>Geology and Soils Impact 4 Mitigation:</u> Vegetation removal and soil disturbances (including temporary road improvements) will be minimized in areas where soil constraints occur. Where vegetation removal is required, mowing or cutting will be the primary method utilized. Plants will generally be cut at a height that results in the least damage to the root crown during cutting or subsequent damage by vehicles and equipment. Blading will be restricted except when required for safe equipment operation (e.g., crane operation on a side hill). Previously located environmental constraint areas will be delineated in the field by a qualified resource specialist prior to construction and included in the COM Plan. These environmental constraint areas will then be avoided by construction activities, or mitigation would be applied consistent with measures described in this EIS/EIR.	LS
<u>Geology and Soils Impact 5:</u> <i>Shrink and swell actions of expansive soils could damage equipment foundations.</i>	S	<u>Geology and Soils Impact 5 Mitigation:</u> Prior to construction, soils will be evaluated to determine if they are expansive and if they may have potential effects on the proposed facilities. Where they represent a potential hazard, solutions recommended by the Proposed Project's geotechnical engineer, such as excavation and replacement of the expansive soils with compacted backfill, will be required. If imported backfill material is used, it will be certified to be free of noxious weeds and propagates (i.e., seeds and root fragments).	LS
<u>Geology and Soils Impact 6:</u> <i>Ground disturbance and vegetation removal during construction could result in increased soils erosion.</i>	LS	<u>Geology and Soils Impact 6 Mitigation:</u> <i>Short-term erosion and sedimentation will be reduced and topography and vegetation will be restored, as quickly as practicable, to pre-construction conditions in all areas required and approved by BLM and private landowners.</i> A qualified resource specialist will monitor implementation during construction and operations, until successful revegetation is achieved. Monitoring of the erosion control measures will continue until reclamation efforts were considered complete and successful. Measures to be implemented during the Proposed Project construction and reclamation are listed below.	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>Implementation of the following environmental protection practices will minimize the effects of grading, excavation, and other surface disturbances in all project areas. Schedules and specifications on the use of these features would be included in the COM Plan. In addition, specific mitigation measures for the construction of transmission lines within the CVPA and NECO planning areas, which are primarily associated with biological and recreational resources, are discussed in Sections 3.1 and 3.13 of this EIS/EIR.</p> <ul style="list-style-type: none">• Confine all vehicular traffic associated with construction to designated right-of-ways, material yards, wire set-up sites, and access roads designated in the COM Plan.• Limit disturbance/removal of soils and vegetation to the minimum area necessary for access and construction.• Where vegetation removal is necessary, use cutting/mowing methods instead of blading, wherever possible.• Adhere to a construction methodology that mitigates impacts to less than significant levels in sensitive areas during severe weather events.• Inform all construction personnel before they are allowed to work on the Proposed Project of environmental concerns, pertinent laws and regulations, and elements of the erosion control plan. This could be presented in a multi-hour environmental training for project management and general foremen, and a short (one hour or less) environmental training class for construction personnel.• Minimize grading to the extent possible. When required, grading will be conducted away from watercourses/washes to reduce the potential of material entering the watercourse.• Slope and berm graded material, where possible, to reduce surface water flows across the graded area.• Replace excavated materials in disturbed areas and minimize the time between excavation and backfilling.• Direct the dewatering of excavations onto stable surfaces to avoid soil erosion.• Use detention basins, certified weed-free straw bales, or silt fences, where appropriate.• Use drainage control structures, where necessary, to direct surface drainage away from disturbance areas and to minimize runoff and sediment deposition downslope from all disturbed areas. These structures include culverts, ditches, water bars (berms and cross ditches), and sediment traps.• Implement other applicable BMPs to minimize erosion-related impacts during construction and improvement of access roads, and their subsequent reclamation.• Re-establish native and, if necessary, non-persistent, non-invasive, non-native vegetation cover in highly erodible areas as quickly as possible following construction. <p>In areas of highly erodible soils, non-standard construction equipment and techniques that minimize surface disturbance, soil compaction, and loss of topsoil will be used, such as vehicles with low ground pressure tires. Vegetation clearing will be minimized. Temporary erosion control measures, in accordance with the COM Plan, will be in place before construction is allowed to proceed in potential soil erosion areas (e.g., steep slope areas). Erodible slopes that do not require grading will be cleared using equipment that results in little to no soil disturbance.</p>	

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
ALTERNATIVE A			
<i>Geology and soil impacts of Alternative A and Variation A-1 would be similar to those identified for the Proposed Project. Potential differences in the impacts are discussed below. Alternative A is approximately the same length as the Proposed Project and essentially crosses the same terrain, with only minor differences. The landslide risk for Alternative A should be slightly greater than that of the Proposed Project because it passes through the steep terrain on the north end of the Chuckwalla Mountains. Nevertheless, the potential for landslides would still exist, and design considerations and mitigation measures identified for the Proposed Project would be applied to Alternative A to ensure that this potential impact would remain at less than significant levels. All mitigation measures identified for the Proposed Project would also be required for Alternative A, and would serve to reduce potential Alternative A impacts to less than significant.</i>			
ALTERNATIVE B			
<i>General geology and soils impacts of Alternative B would be similar to those identified for the Proposed Project. Potential differences in the impacts are discussed below. Although the length of the new transmission line to be constructed under Alternative B is shorter than the Proposed Project transmission line, geologic hazards associated with potential landslides may be more significant. In addition to steep terrain in the Palo Verde Mountains traversed by Alternative B, part of this alignment runs along the seismically active region near the Salton Trough. Additionally, modifications and incorporation into this Alternative of upgrade segments 2 and 3 north of the Midway Substation would result in approximately the same total length of transmission line construction and upgrades under Alternative B. Based on probability zones of ground acceleration (Figure 3.5-3), the southern portion of Alternative B will have a lower overall earthquake risk than the Proposed Project. However, the northwest trending portion of this alignment follows the Sand Hills Fault for approximately 25 miles, and is near the Brawley Fault Zone, so the risk may be significant. The seismic risk of the northwestern portion of Alternative B (improvement of existing alignment) would be identical to that of this portion of the Proposed Project and Alternatives A and C. This alternative would have an increased liquefaction risk compared to the Proposed Project due to passage through the sandy Algodones Dunes region, and possibly around low lying areas near the western terminus. The portion of Alternative B near the Midway Substation has a land surface near or below sea level. The natural groundwater table here is shallow enough to pose a risk of liquefaction in some places; however, water levels in this area have generally dropped, due to pumping, and the risk is correspondingly less. Subsidence risk would be similar to the Proposed Project. Alternative B would result in approximately 667 – 830 acres of soil disturbance during construction (71 – 79 acres of which would be permanent), compared with 1111-1242 acres (of which 148-179 acres would be permanent) for the Proposed Project. Potential soil impacts associated with this disturbance would be similar to those identified for the Proposed Project. Segment alignment Option B-1 would traverse a sandy wash that would be avoided by the main Alternative B route. Crossing this wash would result in an increased potential for significant erosion during flash flood events along this segment. Although Option B-1 bypasses the steepest portions of Alternative B, it traverses a portion of the Colorado River floodplain where groundwater is likely to be shallow, thereby increasing the risk of liquefaction and subsidence. All mitigation measures identified for the Proposed Project would also be required for Alternative B, and would serve to reduce potential Alternative B impacts to less than significant.</i>			
ALTERNATIVE C			
<i>Geology and soil impacts of Alternative C would be similar to those identified for the Proposed Project. Potential differences in the impacts are discussed below. Alternative C is approximately the same length as the Proposed Project and essentially crosses the same terrain, with only minor differences. The landslide risk for Alternative C should be the same as that of the Proposed Project. The potential for landslides would still exist, and design considerations and mitigation measures identified for the Proposed Project would be applied to Alternative C to ensure that this potential impact would remain at less than significant levels. All mitigation measures identified for the Proposed Project would also be required for Alternative C, and would serve to reduce potential Alternative C impacts to less than significant.</i>			
Section 3.6 – Visual Resources			
PROPOSED PROJECT (VARIATION PP1)			
Visual Resources Impact 1: <i>Potential Visual Impacts During Construction</i>	S	Visual Resources Impact 1 Mitigation Measure: <i>Mitigation Measure for Construction Impacts.</i> <ul style="list-style-type: none"> After Project construction is complete, ground surfaces within the transmission line right-of-way and areas outside the right-of-way that are disturbed during project construction would be restored to their original condition and grade, as outlined in the Reclamation Plan. Staging areas would be revegetated as necessary, pursuant to the Reclamation Plan. Topographic features and landforms would be used to screen the spur roads where feasible. 	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<ul style="list-style-type: none"> Existing rock formations and vegetation would be retained whenever possible. Construct access roads and the spur roads at appropriate angles from the originating primary travel route to minimize extended, in-line views of newly graded terrain. This mitigation is dependent upon the ability to safely construct, maintain, and utilize the road/route. 	
Visual Resources Impact 2: <i>Conflicts with BLM VRM Goals and Objectives.</i>	S	<p>Visual Resources Impact 2 Mitigation Measures: <i>Mitigation Measures for Conflicts with VRM System Goals and Objectives.</i></p> <ul style="list-style-type: none"> Establish limits of disturbance that reflect the minimum area required for construction. Finish transmission structures with flat, neutral gray tones that would relate to the colors of the structures in the existing transmission corridors and would blend with the surrounding environment. Use nonspecular conductors, and nonreflective and nonrefractive insulators to reduce conductor and insulator visibility. 	LS
ALTERNATIVE A			
<i>Visual resources impacts associated with Alternative A and Variation A-1 would be similar to these identified above the Proposed Project, and mitigation measures identified for the Proposed Project would also be appropriate for Alternative A impacts. Mitigation measures are expected to be sufficient to reduce potentially significant impacts to a less than significant level.</i>			
ALTERNATIVE B			
Visual Resources Impact B1: <i>Potential Visual Impacts During Construction.</i>	S	<p>Visual Resources Impact B1 Mitigation Measure: <i>Mitigation Measure for Construction Impacts.</i></p> <p>Mitigation Measure for Alternative B would be similar to those identified for the Proposed Project.</p>	LS
Visual Resources Impact B2: <i>Conflicts with VRM System Goals and Objectives.</i>	S	<p>Visual Resources Impact B2 Mitigation Measure: <i>Mitigation Measure for Conflicts with VRM System Goals and Objectives.</i></p> <p>Mitigation measures for Alternative B would be similar to those identified for the Proposed Project.</p>	LS
Section 3.7 – Land Use			
PROPOSED PROJECT (VARIATION PP1)			
Land Use Impact 1: <i>Elements of the Proposed Project may be inconsistent with applicable land use plans, zoning ordinances, or applicable habitat conservation plan or natural community conservation plan.</i>	LS	Not required.	LS
Land Use Impact 2: <i>The project would potentially convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Farmland of Local Importance (Important Farmland) to non-agricultural use.</i>	LS	Not required.	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
ALTERNATIVE A			
Land Use Impact A1: <i>Elements of Option A-2 may be inconsistent with applicable land use plans, zoning ordinances, or applicable habitat conservation plan or natural community conservation plan.</i>	LS	Not required.	LS
Land Use Impact A2: <i>Option A-2 could potentially convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Farmland of Local Importance (Important Farmland) to non-agricultural use.</i>	LS	Not required.	LS
ALTERNATIVE B			
Land Use Impact B1: <i>Elements of Alternative B may be inconsistent with applicable land use plans zoning ordinances, or applicable habitat conservation plan or natural community conservation plan.</i>	S	<p>Land Use Impact B1 Mitigation: <i>Amend the CDCA Plan, and obtain a General Plan Exemption and Zoning Variance from Imperial County.</i></p> <p>If Alternative B (with or without Option B-1) was the selected alternative route, an amendment to the CDCA would be required. The CDCA Plan identifies designated utility corridors within the planning area, and the decision criteria used for siting future utility projects or designating new corridors.</p> <p>In analyzing any applicant's request for amending or changing the Plan, the BLM District Manager, will among other things, determine if alternative locations within the CDCA are available which would meet the applicant's needs without requiring a change in the Plan, determine the environmental affects of granting and/or implementing the applicant's request, provide opportunities for public comment on the proposed amendment, and evaluate the effect of the proposed amendment on BLM management's desert-wide obligation to achieve and maintain a balance between resource use and resource protection.</p> <p>Inconsistency with the IGP related to routing the transmission line outside of designated utility corridors could be rectified through obtaining a General Plan Amendment from the county. Similarly, inconsistency with the Imperial County Zoning Ordinance for zones S-2 and A-3 could be rectified through obtaining a zoning variance from Imperial County, which would accommodate transmission line support tower heights greater than allowed under the current zoning ordinance.</p>	LS
Land Use Impact B2: <i>Alternative B would potentially convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Farmland of Local Importance (Important Farmland) to non-agricultural use.</i>	LS	Not required.	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
ALTERNATIVE C			
Land Use Impact C1: <i>Elements of Alternative C may be inconsistent with applicable land use plans, zoning ordinances, or applicable habitat conservation plan or natural community conservation plan.</i>	LS	Not required.	LS
Land Use Impact C2: <i>Alternative C would potentially convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Farmland of Local Importance (Important Farmland) to non-agricultural use.</i>	LS	Not required.	LS
Section 3.8 – Socioeconomics			
PROPOSED PROJECT (VARIATION PP1)			
Socioeconomic Impact 1: <i>Construction and operation of the Proposed Project would increase employment in the project area.</i>	LS	Not required.	LS
Socioeconomic Impact 2: <i>Construction and operation of the Proposed Project would increase the population in the project area.</i>	LS	Not required.	LS
Socioeconomic Impact 3: <i>Construction and operation of the Proposed Project would increase the demand for housing in the project area.</i>	LS	Not required.	LS
Socioeconomic Impact 4: <i>Construction of the Proposed Project would result in positive short-term impacts on the local economy in Riverside and Imperial Counties.</i>	LS	Not required.	LS
Socioeconomic Impact 5: <i>Construction of the Proposed Project would result in positive short-term impacts on fiscal resources of local governments in the project area.</i>	LS	Not required.	LS
Socioeconomic Impact 6: <i>Construction and operation of the Proposed Project would impact public facilities and services in the project area.</i>	LS	Not required.	LS
Socioeconomic Impact 7: <i>Potential environmental justice impacts associated with the Proposed Project.</i>	LS	Not required.	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
ALTERNATIVE A			
<i>Socioeconomic impacts associated with Alternative A and Variation A-1 are similar to those identified above the Proposed Project, and mitigation measures identified for the Proposed Project would also be appropriate for Alternative A impacts. Mitigation measures are expected to be sufficient to reduce potentially significant impacts to a less than significant level.</i>			
ALTERNATIVE B			
<i>Socioeconomic impacts associated with Alternative B and Option B-1 are similar to those identified above the Proposed Project, and mitigation measures identified for the Proposed Project would also be appropriate for Alternative B impacts. Mitigation measures are expected to be sufficient to reduce potentially significant impacts to a less than significant level.</i>			
ALTERNATIVE C			
<i>Socioeconomic impacts associated with Alternative C are similar to those identified above the Proposed Project, and mitigation measures identified for the Proposed Project would also be appropriate for Alternative C impacts. Mitigation measures are expected to be sufficient to reduce potentially significant impacts to a less than significant level.</i>			
Section 3.9 – Noise			
PROPOSED PROJECT (VARIATION PP1)			
Noise Impact 1: <i>Noise generated during construction of project facilities could result in temporary increases in noise levels to sensitive receptors.</i>	LS	Noise Impact 1 Mitigation: <ul style="list-style-type: none"> (a) Construction occurring within 0.5 miles of a residential dwelling or designated campground shall be limited to a Monday through Friday work schedule of 7:00 a.m. to 7:00 p.m. to reduce sleep interference. (b) Construction equipment shall be equipped with manufacturer recommended mufflers or equivalent. (c) Construction equipment shall be turned off when not in operation. 	LS
Noise Impact 2: <i>Blasting that may be necessary during transmission line construction could create a nuisance at sensitive receptors within proximity to such activities.</i>	LS	Noise Impact 2 Mitigation: <ul style="list-style-type: none"> (a) Blasting during construction would only be conducted when other practicable excavation methods are not available. (b) In the event that blasting is necessary, it would be conducted only during the hours of 7:00 a.m. to 5:00 p.m., Monday through Friday. (c) Sensitive receptors within areas in which noise from blasting would be greater than ten dB would be provided advance notification of the date and time of any blasting activities. (d) In the event that blasting is necessary, a Blasting Plan would be developed and approved by the BLM and the project proponents. 	LS
Noise Impact 3: <i>Operational noise would include noise emitted by project facilities, such as humming and hissing, and noise from activities associated with maintenance. These noise levels would be low and of short duration in the case of operational noise and noise resulting from maintenance activities. These activities are not expected to adversely affect sensitive receptors.</i>	LS	Not required.	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
ALTERNATIVE A			
<i>Impacts associated with Alternative A and Variation A-1 would be similar to those discussed above for the Proposed Project. Corresponding mitigation measures are expected to be sufficient to reduce potentially significant impacts to a less than significant level.</i>			
ALTERNATIVE B			
<i>The closest significant residential community along the Alternative B and Option B-1 route is Nicholls Hot Spring/Palo Verde (5,000 feet). Noise levels at Nicholls Hot Springs/Palo Verde would be approximately 51 dBA. This alternative goes through Glamis, but Glamis is composed of very few residents. Noise levels for Glamis could be as high as 91 dBA. The Alternative B route is within close proximity (approximately .25 miles) of a store and campground near the Sand Hills Recreation Area. These sensitive receptors are limited to seasonal and long-term occupants at the campground. Noise from construction activities would be about 57 dBA which could be heard by campers, especially during nighttime. Noise impacts to residents in the area would depend upon distance from the construction activities. However, because construction activities would be of short duration, this impact is considered to be less than significant. Construction, potential blasting and operational noise could have impacts similar to those identified for the Proposed Project. These impacts would be less than significant and could be further reduced through implementation of the mitigation measures identified for the Proposed Project.</i>			
ALTERNATIVE C			
<i>Impacts associated with Alternative C would be similar to those discussed above for the Proposed Project. Corresponding mitigation measures are expected to be sufficient to reduce potentially significant impacts to a less than significant level.</i>			
Section 3.10 – Traffic and Transportation			
PROPOSED PROJECT (VARIATION PP1)			
Traffic and Transportation Impact 1: <i>Vehicle trips for personnel and equipment movement during construction and operation of the Proposed Project would increase traffic volumes on area roadways.</i>	LS	Not required.	LS
Traffic and Transportation Impact 2: <i>Construction activities in proximity to public roadways could create traffic delays and unsafe conditions for motorists.</i>	LS	Traffic and Transportation Impact 2 Mitigation: <i>Traffic controls would be implemented at locations of ingress and egress of construction vehicles on public roadways as necessary to ensure that safe driving conditions are maintained.</i> <i>Traffic controls could include ensuring that the locations of newly constructed access road intersections with public roadways are highly visible and placing signage and traffic control crews at select locations to ensure that motorists are aware of the presence of crossing or slow-moving construction vehicles.</i>	LS
Traffic and Transportation Impact 3: <i>Construction activities could result in damage to local roadways.</i>	LS	Traffic and Transportation Impact 3 Mitigation: <i>Following construction, or during construction as necessary to maintain safe driving conditions, any damage to existing roadways caused by construction vehicles would be repaired.</i>	LS
Traffic and Transportation Impact 4: <i>Construction activities and the presence of the Proposed Project transmission line in proximity to airports could disrupt operation of these facilities.</i>	LS	Not required.	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
ALTERNATIVE A			
<i>Impacts of Alternative A and Variation A-1 would be similar to those described for the Proposed Project. The Alternative A transmission line would cross I-10 twice (as shown on Figure 3-10.1). Potential impacts associated with the Alternative A transmission line I-10 crossings would be similar to those discussed above for the Proposed Project. Although this alternative is closer to I-10 than those discussed above, additional traffic on I-10 is not anticipated, as access to the transmission line would primarily occur within the transmission line right-of-way or by use of adjacent existing gas pipeline access roads. Construction activities adjacent to I-10 would be at a sufficient distance so as not to create an increased risk to motorists. Specific roadways used for personnel and equipment transport and the total numbers of construction trips per day would be similar to those of the Proposed Project. Impacts would remain less than significant, and could be further reduced with the implementation of the same mitigation measures identified for the Proposed Project.</i>			
ALTERNATIVE B (and Option B-1)			
Traffic and Transportation Impact B1: <i>Construction activities in the proximity of SR-78 could create traffic delays and unsafe conditions for motorists.</i>	LS	Traffic and Transportation Impact B1 Mitigation: <i>Traffic controls would be implemented at locations of ingress and egress of construction vehicles on SR-7,8 as necessary, to ensure that safe driving conditions are maintained.</i> Traffic controls could include ensuring that the locations of newly constructed access road intersections with public roadways are highly visible and placing signage and traffic control crews at select locations to ensure that motorists are aware of the presence of crossing or slow-moving construction vehicles.	LS
Traffic and Transportation Impact B2: <i>Construction activities could result in damage to SR-78 and other local roadways.</i>	LS	Traffic and Transportation Impact B2 Mitigation: <i>Following construction, or during construction as necessary to maintain safe driving conditions, any damage to existing roadways caused by construction vehicles would be repaired.</i> Option B-1 crosses SR-78 at four additional locations more than Alternative B. This option also parallels SR-78 an additional 5 miles. These conditions would have an increased potential for disrupting traffic flow and collision hazards on SR-78. Therefore, this option would have an increased potential for impacts than previously discussed for Alternative B. Given the speed of transmission line construction, these impacts would not occur over prolonged periods of time. In addition to the impacts associated with construction discussed above, Alternative B would result in similar impacts on roadways north of the Midway Substation during construction activities associated with improvements to the Coachella, Mirage, and Devers Substations. The improvements to existing transmission lines along Alternative B transmission line improvement segments 1 and 2, as indicated on Figure 3-10.1, will also have similar impacts. Much of the access necessary for transmission line improvements would occur along the existing transmission line access roads. Construction traffic for these improvements would not be expected to result in substantial delays on area roadways. Impacts associated with construction traffic and potential damage to roadways from heavy construction vehicles could be mitigated through the implementation of the same mitigation measures identified for the Proposed Project, and would reduce the impacts of Alternative B to less than significant levels.	LS
ALTERNATIVE C			
<i>Impacts of Alternative C would be similar to those described for the Proposed Project. The Alternative C transmission line would cross I-10 a total of four times (as shown on Figure 3-10.1) and would be parallel and adjacent to I-10. Potential impacts associated with the Alternative C transmission line I-10 crossings would be similar to those discussed above for the Proposed Project, but would exist at four locations instead of the two locations identified for the Proposed Project. Although this alternative is closer to I-10 than those discussed above, additional traffic on I-10 is not anticipated, as access to the transmission line would primarily occur within the transmission line right-of-way or by use of adjacent existing transmission line access roads. Construction activities adjacent to I-10 would be at a sufficient distance so as not to create an increased risk to motorists. Specific roadways used for personnel and equipment transport and the total numbers of construction trips per day would be similar to those of the Proposed Project. Impacts would remain less than significant, and could be further reduced with the implementation of the same mitigation measures identified for the Proposed Project.</i>			

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Section 3.11 – Public Health and Safety			
PROPOSED PROJECT (VARIATION PP1)			
Health and Safety Impact 1: <i>Use of hazardous materials for construction, operation and maintenance of the Proposed Project would create potential exposure for workers and the public.</i>	LS	Not required.	LS
Health and Safety Impact 2: <i>Construction activities would generate solid wastes requiring disposal.</i>	LS	Not required.	LS
Health and Safety Impact 3: <i>Activities associated with construction, operation and maintenance of the Proposed Project would increase potential for accidental fire ignition.</i>	S	Health and Safety Impact 3 Mitigation: <i>IID would implement a FPRP during construction, operation, and maintenance of the proposed transmission line. A detailed plan would be prepared as part of the COM Plan. A preliminary outline of the FPRP is provided with this EIS/EIR as Appendix H, and includes some of the basic practices and techniques that would be included in the final FPRP, and used to minimize fire hazards associated with the Proposed Project.</i>	LS
Health and Safety Impact 4: <i>Transportation and use of materials necessary for potential blasting could create an increased risk of injury to workers and the public.</i>	LS	Not required.	LS
Health and Safety Impact 5: <i>The energized transmission line would increase potential for accidental fire ignition.</i>	LS	Not required.	LS
Health and Safety Impact 6: <i>Substation equipment and the energized transmission line could increase EMF levels within and in areas immediately adjacent to the right-of-way.</i>	LS	Not required.	LS
Health and Safety Impact 7: <i>Energized transmission line would create risk of electric shock within the transmission line right-of-way.</i>	S	Health and Safety Impact 7 Mitigation: <i>Prior to energizing the Proposed Project transmission line, IID would consult with managers of agricultural land within the transmission line right-of-way to ensure that irrigation practices would not create a potential for water stream contact with overhead transmission lines. This mitigation measure would reduce Health and Safety Impact 7 to less than significant.</i>	LS
Health and Safety Impact 8: <i>Energized transmission line would create potential disruption to pacemaker operation within and immediately adjacent to transmission line right-of-way.</i>	LS	Not required.	LS
ALTERNATIVE A			
<i>Impacts associated with hazardous materials, fire management, electric shock and pacemaker function under Alternative A, and Options A-1, would be similar to those identified in Proposed Project Impacts 1, 2, 3, 4, 5, 6, 7 and 8, above. All mitigation measures identified for these impacts under the Proposed Project would also be required for Alternative A, and Options A-1, and would serve to reduce potential Alternative A, and Options A-1, impacts to less than significant. Impacts associated with electric and magnetic fields would also be similar to those identified for the Proposed Project (see Health and Safety Impact 8, above).</i>			

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
ALTERNATIVE B			
<i>Impacts associated with hazardous materials, fire management, electric shock and pacemaker function under Alternative B, and Option B-1, would be similar to those identified in Proposed Project Impacts 1, 2, 3, 4, 5, 6, 7 and 8, above. Mitigation measures identified for these impacts under the Proposed Project would also be required for Alternative B, and Option B-1, and would serve to reduce potential Alternative B, and Option B-1, impacts to less than significant. Impacts associated with electric and magnetic fields would also be similar to those identified for the Proposed Project (see Health and Safety Impact 6, above); however, due to variations in configurations associated with the Alternative B alignment, estimates of electric and magnetic fields at certain locations along the Alternative B transmission line alignment have been calculated and are presented in Health and Safety Impact B1, below.</i>			
<i>Health and Safety Impact B1: Substation equipment and the energized transmission line could increase EMF levels within and in areas immediately adjacent to right-of-way.</i>			
ALTERNATIVE C			
<i>Health and Safety Impact C1: Substation equipment and the energized transmission line could increase EMF levels within and in areas immediately adjacent to right-of-way.</i>			
Section 3.12 – Paleontological Resources			
PROPOSED PROJECT (VARIATION PP1)			
Paleontological Resources Impact 1: <i>Excavation in conjunction with development of the Proposed Project has a high potential to adversely impact significant paleontologic resources.</i>	S	Paleontological Resources Impact 1 Mitigation: <i>A qualified vertebrate paleontologist will develop a program to mitigate impacts to nonrenewable paleontologic resources. This mitigation program will be consistent with provisions of CEQA, regulations currently implemented by Riverside County, and proposed guidelines of the Society of Vertebrate Paleontology. This program will include, but will not be limited to:</i> <ol style="list-style-type: none"> 1) Pre-construction survey of the length of the Proposed Project alignment to confirm and/or augment geologic mapping, to further assess the paleontologic potential of the geologic formations described herein (particularly those having undetermined paleontologic sensitivity), to recover exposed paleontologic resources as necessary, and to determine where historic or recent disturbances might have reduced or eliminated the paleontologic sensitivity of a given rock unit. 2) Monitoring, by a qualified paleontologic monitor, of excavation in areas identified as having high or undetermined potential to contain paleontologic resources. The monitor should be equipped to salvage fossils as they are unearthed, to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The monitor must be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Monitoring may be reduced if the potentially fossiliferous units described herein are not present at the surface or in the subsurface, or if present are determined upon exposure and examination by qualified paleontologic personnel to have low potential to contain fossil resources. 3) Preparation of recovered specimens to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates. 4) Identification and curation of specimens into a museum repository with permanent retrievable storage. The paleontologist should have a written repository agreement in hand prior to the initiation of mitigation activities. 5) Preparation of a report of findings with an appended itemized inventory of specimens. The report and inventory, when submitted to the appropriate Lead Agency, would signify completion of the program to mitigate impacts to paleontologic resources. 	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
ALTERNATIVE A (Variation A-1)			
<i>Similar to the Proposed Project, the results of the literature review demonstrate that the alignment of the Alternative A and Variation A-1 transmission line would traverse a variety of fossiliferous geologic units with high potential to contain significant nonrenewable paleontologic resources. Table 3.12-1 summarizes the paleontological resource localities along or near the alignments and identifies if the resource could potentially be impacted during construction activities. Although a limited number of known paleontological resources sites are located within or in proximity to the Alternative A and Variation A-1 transmission line alignment which include those known to be present and an unknown number of undiscovered resources that may also be present. Ground disturbance associated with tower footing excavation and other construction activities would, therefore, have a high potential to adversely impact significant paleontological resources during construction of the Alternative A transmission line. Mitigation identified for the Proposed Project could also be implemented for Alternative A and Variation A-1 and would reduce potential impacts associated with Alternative A and Variation A-1 to less than significant.</i>			
ALTERNATIVE B (Option B-1)			
<i>Similar to the Proposed Project, the results of the literature review demonstrate that the alignment of the Alternative B and Option B-1 transmission line would traverse a variety of fossiliferous geologic units with high potential to contain significant nonrenewable paleontologic resources. Table 3.12-1 summarizes the paleontological resource localities along or near the alignments and identifies if the resource could potentially be impacted during construction activities. A limited number of known paleontological resource sites are located within or in proximity to the Alternative B and Option B-1 transmission line alignment, which include those known to be present and an unknown number of undiscovered resources that may also be present. Ground disturbance associated with tower footing excavation and other construction activities would, therefore, have a high potential to adversely impact significant paleontological resources during construction of the Alternative B transmission line. Mitigation identified for the Proposed Project could also be implemented for Alternative B and Option B-1, and would reduce potential impacts associated with Alternative B to less than significant.</i>			
ALTERNATIVE C			
<i>Similar to the Proposed Project, the results of the literature review demonstrate that the alignment of the Alternative C transmission line would traverse a variety of fossiliferous geologic units with high potential to contain significant nonrenewable paleontologic resources. Table 3.12-1 summarizes the paleontological resource localities along or near the alignments and identifies if the resource could potentially be impacted during construction activities. Although a limited number of known paleontological resources sites are located within or in proximity to the Alternative C transmission line alignment which include those known to be present and an unknown number of undiscovered resources that may also be present. Ground disturbance associated with tower footing excavation and other construction activities would, therefore, have a high potential to adversely impact significant paleontological resources during construction of the Alternative C transmission line. Mitigation identified for the Proposed Project could also be implemented for Alternative C, and would reduce potential impacts associated with Alternative C to less than significant.</i>			
Section 3.13 – Wilderness and Recreation			
PROPOSED PROJECT (VARIATION PP1)			
Wilderness and Recreation Impact 1: A new transmission line may result in the reduction of wilderness and recreation quality.	LS	Not required.	LS
Wilderness and Recreation Impact 2: Construction activity could reduce access and visitation to wilderness and recreation areas during construction.	LS	Not required.	LS
ALTERNATIVE A (Variation A-1)			
Wilderness and Recreation Impact A1: A new transmission line may result in the reduction of wilderness and recreation quality.	LS	Not required.	LS

Table ES-7
Summary of Potentially Significant Environmental Effects

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<u>Wilderness and Recreation Impact A2:</u> <i>Construction activity may result in the reduction in access and visitation to wilderness and recreation areas during construction.</i>	LS	Not required.	LS
ALTERNATIVE B (Option B-1)			
<u>Wilderness and Recreation Impact B1:</u> <i>A new transmission line may result in the reduction of wilderness and recreation quality.</i>	LS	Not required.	LS
<u>Wilderness and Recreation Impact B2:</u> <i>Construction activity may result in the reduction in access and visitation to wilderness and recreation areas during construction.</i>	LS	Not required.	LS
ALTERNATIVE C			
<u>Wilderness and Recreation Impact C1:</u> <i>A new transmission line may result in the reduction of wilderness and recreation quality.</i>	LS	Not required.	LS
<u>Wilderness and Recreation Impact C2:</u> <i>Construction activity may result in the reduction in access and visitation to wilderness and recreation areas during construction.</i>	LS	Not required.	LS

S = Significant; LS = Less than Significant; SU = Significant Unavoidable